

**LG**

Life's Good

**LG NITRO™ HD**

# User Guide

All screen shots in this guide are simulated.

Actual displays and the color of the phone may vary.

Some of the contents in this manual may differ from your phone depending on the software of the phone or your service provider.

P/NO: MFL67282202 (1.0)

[www.lg.com](http://www.lg.com)

# LIMITED WARRANTY STATEMENT

## 1. WHAT THIS WARRANTY COVERS :

LG offers you a limited warranty that the enclosed subscriber unit and its enclosed accessories will be free from defects in material and workmanship, according to the following terms and conditions:

1. The limited warranty for the product extends for TWELVE (12) MONTHS beginning on the date of purchase of the product with valid proof of purchase, or absent valid proof of purchase, FIFTEEN (15) MONTHS from date of manufacture as determined by the unit's manufacture date code.
2. The limited warranty extends only to the original purchaser of the product and is not assignable or transferable to any subsequent purchaser/end user.
3. This warranty is good only to the original purchaser of the product during the warranty period as long as it is in the U.S, including Alaska, Hawaii, U.S. Territories and Canada.
4. The external housing and cosmetic parts shall be free of defects at the time of shipment and, therefore, shall not be covered under these limited warranty terms.
5. Upon request from LG, the consumer must provide information to reasonably prove the date of purchase.
6. The customer shall bear the cost of shipping the product to the Customer Service Department of LG. LG shall bear the cost of shipping the product back to the consumer after the completion of service under this limited warranty.

## 2. WHAT THIS WARRANTY DOES NOT COVER :

1. Defects or damages resulting from use of the product in other than its normal and customary manner.
2. Defects or damages from abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of LG, including damage caused by shipping, blown fuses, spills of food or liquid.
3. Breakage or damage to antennas unless caused directly by defects in material or workmanship.
4. That the Customer Service Department at LG was not notified by consumer of the alleged defect or malfunction of the product during the applicable limited warranty period.
5. Products which have had the serial number removed or made illegible.
6. This limited warranty is in lieu of all other warranties, express or implied either in fact or by operations of law, statutory or otherwise, including, but not limited to any implied warranty of marketability or fitness for a particular use.
7. Damage resulting from use of non-LG approved accessories.
8. All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal customer use.

- 9. Products operated outside published maximum ratings.
- 10. Products used or obtained in a rental program.
- 11. Consumables (such as fuses).

### **3. WHAT LG WILL DO:**

LG will, at its sole discretion, either repair, replace or refund the purchase price of any unit that does not conform to this limited warranty. LG may choose at its discretion to use functionally equivalent reconditioned, refurbished or new units or parts or any units. In addition, LG will not re-install or back-up any data, applications or software that you have added to your phone. It is therefore recommended that you back-up any such data or information prior to sending the unit to LG to avoid the permanent loss of such information.

### **4. STATE LAW RIGHTS :**

No other ex warranty is applicable to this product. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. LG INFOCOMM INC. SHALL NOT BE LIABLE FOR THE LOSS OF THE USE OF THE PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE OF, OR INABILITY TO USE, THIS PRODUCT OR FOR ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING THE IMPLIED WARRANTY OF MARKETABILITY APPLICABLE TO THIS PRODUCT.

Some states do not allow the exclusive of limitation of incidental or consequential damages or limitations on how long an implied warranty lasts; so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

### **5. HOW TO GET WARRANTY SERVICE :**

To obtain warranty service, please call or fax to the following telephone numbers from anywhere in the continental United States:

Tel. 1-800-793-8896 or Fax. 1-800-448-4026

Or visit [www.lg.com](http://www.lg.com).

Correspondence may also be mailed to:

LG Electronics MobileComm U.S.A., Inc.

201 James Record Road Huntsville, AL 35824

DO NOT RETURN YOUR PRODUCT TO THE ABOVE ADDRESS.

Please call or write for the location of the LG authorized service center nearest you and for the procedures for obtaining warranty claims.

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# Important Notice

Please check to see if any problems you have encountered with your phone are described in this section before taking the phone in for service or calling a service representative.

## 1. Phone Memory

In order to make more memory available, you will have to manage your applications and delete some data, such as applications or messages.

### Managing Applications

- 1 From the Home screen, tap the **Menu/Search Key**  and tap **Settings > Applications > Manage applications**.
- 2 Tap one of the available tabs at the top of the screen and select the application you want to uninstall.
- 3 Tap **Uninstall** and then tap **OK** to confirm that you want to uninstall the desired application.

## 2. Optimizing Battery Life


You can extend your battery's life between charges by turning off features that you don't need to run constantly in the background. You can also monitor how applications and system

resources consume battery power.

### To extend the life of your battery

- Turn off radio communications that you aren't using, such as Wi-Fi, Bluetooth, or GPS. Wi-Fi will be set to On the first time you use your newly purchased phone.
- Lower screen brightness and set a shorter screen timeout.
- Turn off automatic syncing for Gmail™, Calendar, Contacts, and other applications.
- Some applications you have downloaded may cause your battery power to be reduced.
- While using downloaded applications, check the battery charge level.

### To view the battery charge level

- 1 From the Home screen, tap the **Menu/Search Key**  and tap **Settings > About phone > Status**.
- 2 The battery status (charging or discharging) and level are displayed at the top of the screen.

### To monitor and control what uses the battery

- 1 From the Home screen, tap the **Menu/Search Key**  and tap **Settings > About phone > Battery use**.

## Important notice

- 2 The top of the screen displays battery usage time. It lists all of the applications or services using battery power from the greatest amount of energy used to the least amount.

### 3. Installing an Open Source Operating System


Installing an open source operating system on your phone and not using the operating system provided by the manufacturer can cause your phone to malfunction.

#### ! Warning

- If you install and use an operating system other than the one provided by the manufacturer, your phone is no longer covered by the warranty.
- To protect your phone and personal data, download applications only from trusted sources, such as Android Market. If some applications are not properly installed on your phone, your phone may not work properly- or serious errors may occur. You will need to uninstall those applications and all of its data and settings from the phone.

### 4. Using the Unlock Pattern, PIN, or Password

Set an unlock Pattern, PIN, or Password to secure your phone. To set the screen lock, follow the process below.

Tap the **Menu/Search Key** , tap **Settings > Location & security > Set up screen lock** and select between **Pattern**, **PIN** or **Password**.

#### ! Warning

Take precautions when using an unlock Pattern, PIN, or Password. It is very important that you remember the screen unlock information you set. You are allowed 5 attempts to enter your screen unlock information. If you used up all 5 opportunities, you will have to wait 30 seconds to attempt unlocking the phone again.

#### When you can't recall your Unlock Pattern, PIN, or Password:





If you logged into a Google account on the phone and failed to use the correct pattern 5 times, tap **Forgot Pattern?** You will be required to sign in with your Google account and prompted to create a new

unlock pattern.

If you haven't created a Google account on the phone or you forgot your PIN or Password, you need to perform a hard reset.

### ⚠ Caution



If you perform a hard reset, all user applications and user data will be deleted. Please remember to back up any important data before performing a hard reset.

- 1 Turn the power off.
- 2 Press and hold the following keys at the same time for 8 seconds: **Down Volume Key**  + **Power/Lock Key** .
- 3 Release the keys when the **FACTORY HARD RESET** screen appears.
- 4 Read the warning and press the **Power/Lock Key**  to confirm. Press any other key to cancel.
- 5 Press the **Power/Lock Key**  to confirm once more or press any other key to cancel.
- 6 Your device will perform a hard reset.

## 5. Using Safe Mode and Hard Reset

### Using Safe mode

To recover your phone when malfunctioning.





- 1 Turn off your phone and reboot. When you see the booting animation (Rethink Possible<sup>SM</sup>) press and hold the **Menu/Search Key** . Your main screen will then be displayed with the words "Safe mode" in lower left corner.
- 2 From the Home screen, tap the **Menu/Search Key**  and tap **Settings > Applications > Manage applications**.
- 3 Tap one of the available tabs at the top of the screen and select the application you wish to uninstall.
- 4 Tap **Uninstall** and **OK** to confirm.
- 5 After uninstalling the application, turn off and reboot your phone.

### Using Hard Reset (Factory Reset)

If using Safe Mode does not restore your phone to the original condition, use a **Hard Reset** to initialize your phone.

- 1 Turn the power off.

## Important notice

- 2 Press and hold the following keys at the same time for 8 seconds: **Down Volume Key**  + **Power/Lock Key** 
- 3 Release the keys when the **FACTORY HARD RESET** screen appears.
- 4 Read the warning and press the **Power/Lock Key**  to confirm. Press any other key to cancel.
- 5 Press the **Power/Lock Key**  to confirm once more or press any other key to cancel.
- 6 Your device will perform a hard reset.


### ⚠ Warning

If you perform a Hard Reset, all user applications and user data will be deleted. Please remember to back up any important data before performing a **Hard Reset**.

## 6. Using a microSD Card

Pictures, Music and Video files, can be saved to external memory. Before saving these files to external memory, you need to insert a microSD card. If you have not inserted a microSD card, you will not be able to save these items on external memory.

### ⚠ Warning

Do not remove the microSD card without unmounting it first. Otherwise, it may damage the microSD card as well as your phone, and the data stored on the microSD card may be corrupted. To remove the microSD card safely, from the Home screen, tap the **Menu/Search Key**  and tap **Settings > Storage > Unmount SD card > OK**.

## 7. Connecting your phone to a computer via USB

- 1 Use the USB cable that was provided with your phone to connect the phone to a USB port on your computer. You'll receive a notification that the USB is connected and can see USB connection mode pop-up.
- 2 Tap **Mass storage** and **OK** to confirm that you want to transfer files between your phone's microSD card and the computer.

When the phone is connected as USB storage, you receive a notification. Your phone's microSD card is installed as a drive on your computer. You can now copy files to and from the microSD card.

### ⚠ TIP


You cannot access the microSD card from your

phone while connected as USB storage. So you cannot use applications that rely on the microSD card, such as Music.

To disconnect your phone from the computer, carefully follow your computer's instructions to disconnect USB devices correctly, to avoid losing information on the card. Then follow the instructions below.

- 1 Open the Notifications panel and tap **Turn off USB storage**.
- 2 Then tap **Turn off USB storage** on the USB Mass Storage screen and safely disconnect the phone from your computer.

## 8. Unlock screen when using data connection

Your screen will go dark if untouched for a period of time when using a data connection. To turn on your LCD screen, press the **Power/Lock Key** .

## 9. Hold the phone straight up



**Please hold the mobile phone straight up as a regular phone.**

While making/receiving calls or sending/receiving data, try to avoid holding the lower

part of the phone where the antenna is located. It may affect call quality.

## 10. When the screen freezes

**If the phone does not respond to user input or the screen freezes:**

Press and hold the **Power/Lock Key**  for 10 seconds to turn it off. Then, press and hold the **Power/Lock Key**  again for 3 seconds to reboot the phone.

## 11. Do not connect your phone when you power on/off your PC

Make sure to disconnect your phone from the PC when powering your PC on or off as it might result in PC errors.

# Your Phone

To turn on the phone, press and hold the **Power/Lock Key**  for 3 seconds.

To turn off the phone, press the **Power/Lock Key**  for 3 seconds and tap **Power off** and **OK** to confirm.



## Front view

### Earpiece

### Front-Facing Camera Lens

- Use to take a picture of yourself or to video chat on supported applications.

### Quick Keys

- Phone Key 
- Messaging Key 
- Browser Key 
- Applications Key 

### Menu/Search Key

- Displays available options for the current screen.
- Touch and hold to activate the search function.

### Home Key

- Returns to the Home screen from any screen.

### Power/Lock Key

- Powers your phone on/off by pressing and holding the key.
- Turns your screen on and off and locks it.

### Proximity Sensors

- Senses proximity toward other objects, such as your head during a call, so that you do not accidentally activate unwanted features.

### Back Key

- Returns to the previous screen.
- Closes pop-up menus and dialog boxes.




## ⚠ Warning

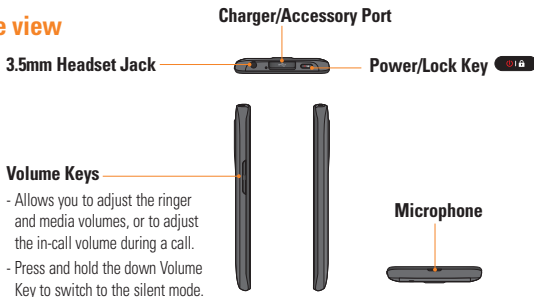
Placing a heavy object on the phone or sitting on it can damage its LCD and touch screen functionalities. Do not cover the LCD's proximity sensor with a protective film. This can cause the sensor to malfunction.



## TIPS

- Tap the **Menu/Search Key**  whenever you open an application to check what options are available.
- If your phone has errors when you use it or you cannot turn it on, remove the battery, install it again and turn it on after 5 seconds.

## Side view



## Rear view



# Getting Started

## Installing the SIM card and battery

Before you can start exploring your new phone, you'll need to set it up. To insert the SIM card and battery:

- 1 Hold the phone on your hand firmly. With the other hand, lift the back cover using the fingertip cutout located on the bottom of the cover and remove it.



- 2 Slide the SIM card into the SIM card slot. Make sure the gold contact area on the card is facing downwards.



- 3 Insert the battery into place by aligning the gold contacts on the phone and the battery (1) and press the battery down until it clicks into place (2).

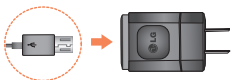


- 4 Replace the back cover of the phone (as demonstrated below). Apply a steady downward pressure until the battery cover clicks into place.



## Charging your phone

- 1 Connect the wall adapter and USB cable as shown below. The USB symbol on the USB cable should face toward you.



- 2 Plug the USB cable (as shown below) into the phone's Charger/Accessory Port. Make sure the USB symbol is facing upwards.



Always unplug the charger from the wall socket after the phone is fully charged to save unnecessary power consumption of the charger.

### NOTE

The battery must be fully charged initially to improve battery lifetime.

### NOTE

Your phone has an internal antenna. Be careful not to scratch or damage this rear area, as that will cause loss of performance.

When the battery becomes fully discharged and you connect the phone to a charger, the keypad LED lights at the bottom of the phone will blink. This is normal operation for a completely discharged battery to prevent over-current flowing because the phone is designed to provide reasonable protection against damage to the battery. After a few minutes, the screen will turn on and display a battery image.

## Inserting a microSD card

Insert a microSD™ card to use the camera and other multimedia features. Multimedia contents can be saved in the microSD card. Your **LG NITRO HD** has a microSD card pre-installed.

### NOTE

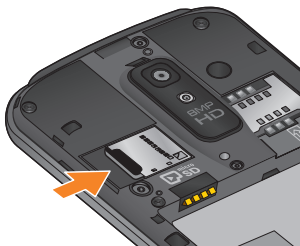
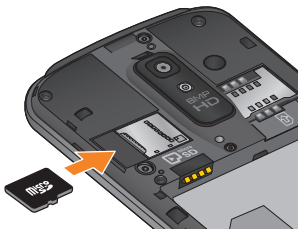
This device supports up to a 32GB microSD card.

## Getting Started

- 1 Turn the phone off before inserting or removing the microSD card. Remove the back cover.



- 2 Gently insert the microSD card into the slot. Make sure the gold contact area is facing downwards.



### NOTE

On Android OS 2.3 and above, you can download applications from Android Market and store them on a microSD card as well as on the phone. Due to this feature, if you skip the unmount procedure, it can cause an error because information between the microSD card and the phone is not accorded properly. In the worst case, the microSD card can be corrupted or damaged.

## Removing the microSD card

To safely remove the microSD card from your phone, you must first unmount it.

- 1 From the Home screen, tap the **Menu/ Search Key**  and tap **Settings > Storage > Unmount SD card > OK**.

- 2 Remove the battery cover and gently pull the microSD card from the slot.

### ! Warning


Do not remove the microSD card without unmounting it first. Otherwise, it may damage the microSD card as well as your phone, and the data stored on the microSD card may be corrupted.

## Formatting the microSD card

Your microSD card may already be formatted. If it isn't, you must format it before you can use it.

### ! NOTE

All files on the card are deleted when you format the microSD card.

- 1 From the Home screen, tap the **Menu/Search Key**  and tap **Settings > Storage > Unmount SD card > OK**.
- 2 Tap **Erase SD card** twice.
- 3 If you set an unlock pattern, enter it and tap **Erase everything**. The card will then be formatted and ready to use.

### ! NOTE

If there is content on your microSD card, the folder structure may be different after formatting since all the files will have been deleted.


## Switching between and exiting applications

Multi-tasking is easy with Android because open applications keep running even when you open another application. There is no need to quit an application before opening another. Use and switch among several open applications. Android manages each application, stopping and starting them as needed, to ensure that idle applications don't consume resources unnecessarily.

### Switching between applications

- Touch and hold the **Home Key** . A list of recently used applications will be displayed. Then tap the application you want to access.

### To stop/exit an application

- 1 From the Home screen, tap the **Menu/Search Key**  and tap **Settings > Applications > Manage applications**.
- 2 Tap one of the tabs at the top of the screen, choose the desired application and tap **Force stop** to stop the application.

# Your Home screen

## Touch screen tips

With the touch of your finger, you can access available applications, make menu selections, and access data saved to your phone. The following terms are used for describing the different available actions using the touchscreen:

**Tap** - A single finger tap selects items, links, shortcuts and letters on the on-screen keyboard.

**Touch and hold** - Touch and hold an item on the screen by touching it and not lifting your finger until an action occurs. For example, to open a contact's available options, touch and hold the contact in the Contacts list until the context menu opens.

**Drag** - Touch and hold an item for a moment and then, without lifting your finger, move your finger on the screen until you reach the target position. You can drag items on the Home screen to reposition them.

**Swipe or slide** - To swipe or slide, quickly move your finger across the surface of the screen, without pausing when you first touch it (so you don't drag an item instead). For example, you can slide the screen up or down to scroll through a list, or browse through the different Home screens by swiping from left to right (and vice versa).

**Double-tap** - Double-tap to zoom on a Web page or a map. For example, quickly double-tap a section of a Web page to adjust that section to fit the width of the screen. You can also double-tap to zoom in and out when taking a picture (using the Camera), and when using Maps.

**Pinch-to-Zoom** - Use your index finger and thumb in a pinch or spread motion to zoom in or out when using the browser, Maps, or browsing pictures.

**Rotate the screen** - From many applications and menus, the orientation of the screen adjusts to the device's physical orientation.


### ! NOTE

- To select an item, tap the center of the icon.
- Do not to press too hard; the touch screen is sensitive enough to pick up a light, firm touch.
- Use the tip of your finger to tap the option you want. Be careful not to tap any other keys or icons.


## Proximity sensor

When receiving and making calls, this sensor automatically turns the backlight off and locks the touch keypad by sensing when the phone is near your ear. This extends battery life and prevents the touch keypad from activating unintentionally during calls.

### Lock your phone

When you are not using the **LG NITRO HD**, press the **Power/Lock Key**  to lock your phone. This helps prevent accidental presses and saves battery power.

Also, if you do not use the phone for a while, the Home screen, or other screen you are viewing, is automatically replaced with the lock screen after 30 seconds of inactivity to conserve the battery and prevent pocket dialing.

To wake up your phone, press the **Power/Lock Key** . The lock screen will appear. Slide the lock screen up. The last screen you were working on opens.

#### NOTE

- The automatic screen timeout can be configured manually in Settings.
- If there are any programs running when you lock the phone, they may still be running in lock mode. It is recommended that you exit all programs before entering the lock mode to avoid unnecessary charges (e.g., phone call, web access and data communications).

### Setting an Unlock Pattern, PIN, Password

You can draw your own unlock Pattern or enter a PIN or Password to add more security to your

device. To set an unlock Pattern, PIN, or Password, tap the **Applications Key**  > **Settings** > **Location & security** > **Set up screen lock**. Then choose from **Pattern**, **PIN**, or **Password** and enter the desired information.

#### Caution

You are allowed 5 attempts to enter your screen unlock information. If you used up all 5 opportunities, you will have to wait 30 seconds to attempt unlocking the phone again.

### Quick Switch to Silent Mode

To quickly set your phone to silent mode, press and hold the **Volume Down Key** until you see  on the Status Bar.

### Home

Simply swipe your finger to the left or right to view the different panels.

You can also customize each panel with shortcuts, folders, and widgets, which are shortcuts to your favorite applications.

#### NOTE


On the Home screen, you can view the Quick Keys at the bottom of the screen. The Quick Keys provide easy, one-tap access to the functions you use the most.

### Customizing your Home screen

You can customize your Home screen by adding quick access elements, such as shortcuts, widgets, folders to it, or changing the wallpaper.

- **Widgets:** Add dynamically updating widgets to your Home screen to allow quick access to applications without opening the full application.
- **Shortcuts:** Add application, web bookmark, contact, email, and music playlist shortcuts to the Home screen.
- **Folders:** Add folders to organize contacts and shortcuts.
- **Wallpaper:** Change the Home screen wallpaper.

To add Widgets, Shortcuts, and Folders on the Home screen:

- 1 Select a location (Home screen panels) to add an item by swiping the Home screen from left to right or vice versa.
- 2 Tap the **Menu/Search Key**  > **Add**. Or touch and hold an empty part of the Home screen.
- 3 Tap the type of item you want to add on the screen: **Widgets**, **Shortcuts**, **Folders**, or **Wallpapers**.

4 Tap the desired widget, shortcut, or folder.


- 5 You will see a new icon on the Home screen. To place it on a different panel, touch and hold it to drag it to the desired location on the desired panel and release your finger from the screen.

#### **TIP**

To add a preloaded application or an application you have downloaded from Market to the Home screen, simply touch and hold the icon you want in the Applications Screen.

#### **NOTE**



If there is no available space on a particular Home screen panel, **Add** will not be available; you must delete or remove an item before you can add another item. In this case, you have the option of switching to another Home screen panel.

To delete an application icon from the Home screen, touch and hold the shortcut icon you want to delete and drag to  at the bottom of the screen.

You cannot delete the preloaded applications. (Only their icons can be deleted from the screen).



## Getting back to a recently used application


- 1 Touch and hold the **Home Key** . The screen will display the icons of applications that you have used recently.
- 2 Tap an icon to open its application or tap the **Back Key**  to return to the current application.

## Notifications Panel

Notification icons on the Status Bar report the arrival of new messages, calendar events, alarms, as well as ongoing events, such as when you are in a call. You can view a list of all recent notifications.

The Notifications Panel runs across the top of your screen.



Touch and hold the Status Bar and slide it down with your finger to open the Notifications Panel. Or from the Home screen, tap the **Menu/Search Key**  > **Notifications**. From here, you can check and quickly turn on and off Silent (Vibrate) mode, Wi-Fi, Bluetooth, GPS, and Airplane Mode.

## Viewing the Status Bar

The Status Bar uses different icons to display phone information, such as signal strength, new messages, battery life, and activate Bluetooth and data connections.

Below is a table explaining the meaning of icons you are likely to see in the Status Bar.








### [Status Bar]



## Your Home screen

Icon	Description
	No SIM card inserted
	No network signal available
	Data network is active
	Airplane mode is on
	Connected to a Wi-Fi network
	Wired headset connected
	Call in progress
	Call on hold
	Speakerphone is on
	Phone microphone is muted
	Missed call
	Bluetooth is on
	Connected to a Bluetooth device
	System warning
	An alarm is set

Icon	Description
	New voicemail available
	Ringer is silenced
	Vibrate mode is on
	Battery fully charged
	Battery is charging
	Phone is connected to PC via USB cable
	Downloading data
	Uploading data
	GPS is on
	Receiving location data from GPS
	On-Screen Phone connected
	3 more notifications not displayed
	Data is synchronizing
	Download finished
	New email message available
	New Gmail message available


Icon	Description
	New Google Talk message available
	New text/multimedia message available
	A song is currently playing
	Upcoming event
	USB tethering is active
	Portable Wi-Fi hotspot is active
	USB tethering and Portable Wi-Fi hotspot are active

## On-screen Keyboard

You can enter text using the on-screen keyboard. The on-screen keyboard displays automatically on the screen when you need to enter text. To manually display the keyboard, simply tap a text field where you want to enter text.

There are two types of keypads that you can use: **Android keyboard** and **LG keyboard**.

**To select the keyboard:**

- 1 Tap the **Menu/Search Key**  > **Settings > Language & keyboard > Input method.**

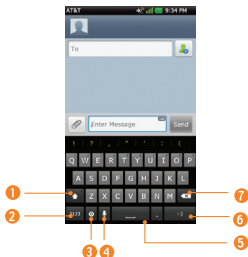
- or -

Touch and hold a text field and tap **Input Method**.

- 2 Select the desired keyboard between **Android keyboard** and **LG keyboard**.

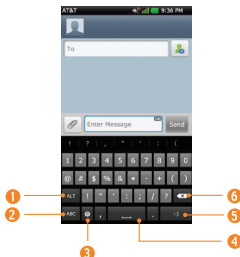
## On-screen Keyboard

### Android keyboard - Letters Entry



- 1 **Shift Key** - Tap once to capitalize the next letter you type. Double-tap for all caps.
- 2 **Number and Symbols Key** - Tap to change input to number and symbol entry.
- 3 **Settings Key** - Tap to set various Android keyboard settings.
- 4 **Voice to Text Key** - Tap to enter text by voice.
- 5 **Space Key** - Tap to enter a space.
- 6 **Emoticon Key** - Tap to enter various emoticons.
- 7 **Delete Key** - Tap to delete characters to the left of the cursor.

### Android keyboard - Numbers and Symbols Entry



- 1 **Alt Key** - Tap to enter additional symbols. The keyboard will change to alternate characters.
- 2 **Letters Key** - Tap to change input to letters entry.
- 3 **Settings Key** - Tap to set various Android keyboard settings.
- 4 **Space Key** - Tap to enter a space.
- 5 **Emoticon Key** - Tap to enter various emoticons.
- 6 **Delete Key** - Tap to delete characters to the left of the cursor.

## LG keyboard - QWERTY - Letters Entry



- 1 **Shift Key** - Tap once to capitalize the next letter you type. Double-tap for all caps.
- 2 **Number and Symbols/ Settings Key** - Tap to change input to number and symbol entry. Touch and hold to set various LG keyboard settings.
- 3 **Delete Key** - Tap to delete characters to the left of the cursor.
- 4 **Hide Keyboard Key** - Tap to hide the keyboard.
- 5 **Enter Key** - Tap to move the cursor to the next line.


## LG keyboard - QWERTY - Numbers and Symbols Entry

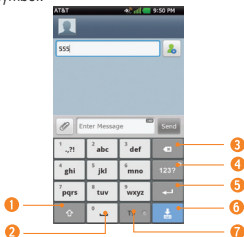


- 1 **Alt Key** - Tap to enter additional symbols. The keyboard will change to alternate characters.
- 2 **Letters/ Settings Key** - Tap to change input to letters entry. Touch and hold to set various LG keyboard settings.
- 3 **Space Key** - Tap to enter a space.
- 4 **Delete Key** - Tap to delete characters to the left of the cursor.
- 5 **Hide Keyboard Key** - Tap to hide the keyboard.
- 6 **Enter Key** - Tap to move the cursor to the next line.

## On-screen Keyboard

### LG keyboard – Phone keypad

To switch to the phone keypad on the LG keyboard, touch and hold . Tap **Keyboard layout**, then tap **Phone keypad**. The Phone keypad allows you to enter letters by tapping the key labeled with the desired letters, similar to how you would on a traditional 12 key phone. You may have to tap a key up to four times to type the desired letter, number, or symbol.



- 1 **Shift Key** - Tap once to capitalize the next letter you type. Double-tap for all caps.
- 2 **Space Key** - Tap to enter a space.
- 3 **Delete Key** - Tap to delete characters to the left of the cursor.

### 4 **Number and Symbols/ Settings**

**Key** - Tap to change input to number and symbol entry. Touch and hold to set various LG keyboard settings.

### 5 **Enter Key** - Tap to move the cursor to the next line.




### 6 **Hide Keypad Key** - Tap to hide the keypad.

### 7 **T9 Key** - Tap to turn on the T9 entry mode.

### ! **TIP**


To switch quickly between the Android keyboard and LG keyboard, touch and hold the text entry field. Then tap **Input method** in the context menu and select the keyboard you wish to use.

## Entering text

 **Shift Key** - Tap once to capitalize the next letter you type. Double-tap for all caps. The colored circle on the button tells you if uppercase is locked on  or if it is just on for one character .


 **Number and Symbols Key** - Tap to change to 123 Mode and enter numbers and symbols.

 **Delete Key** - Deletes any text you have entered.

 **Settings Key** - Tap to set various keyboard settings or change the input method.

To enter a space, tap .

## 123 Mode

This mode allows you to enter numbers in a text message (a telephone number, for example) more quickly. Tap the keys corresponding to the required digits before manually switching back to the appropriate text entry mode by tapping .

## Entering accented letters

The on-screen keyboard allows you to enter special characters (e.g., “á”).

### From Phone Keypad

Tap the key that corresponds to the desired character repeatedly until you see the special character you want.

### From Qwerty keyboard


To input the accent, press and hold the “a” key for example.

After the accented character appears, slide your finger over it and lift it off it to enter it.

# Google Account Setup

The first time you open a Google application on your phone, you will be required to sign in with your existing Google account. If you do not have a Google account, you will be prompted to create one.

## Creating your Google account

- 1 From the Home screen, tap the **Applications Key** .
- 2 Tap **Gmail** > **Next** > **Create** to start the Gmail™ setup wizard.
- 3 Tap a text field to open the keyboard and enter your name and username for your Google account.
- 4 When you're finished entering your name and username, tap **Next**. Your phone will communicate with Google servers and check for username availability.
- 5 Enter and re-enter your password. Then follow the instructions and enter the required and optional information about the account. Wait while the server creates your account.

## Signing into your Google account

- 1 Enter your email address and password, then tap **Sign in**.
- 2 Enter your username and password and tap **Sign in**.
- 3 After signing in, you can use Gmail™ and take advantages of Google services on your phone.
- 4 Once you have set up your Google account, your phone will be automatically synchronized with your Google account on the web. (Depending on your synchronization settings.)

After signing in, your phone will sync with your Google services, such as Gmail™, Contacts, Google Calendar, and Picasa photo albums. You can also use Google Maps™, download applications from Android Market™, back up your settings to Google servers, and take advantage of other Google services on your phone.

## IMPORTANT

- Some applications, such as Calendar, work only with the first Google Account you add. If you plan to use more than one







Google Account with your phone, be sure to sign into the one you want to use with such applications first. When you sign in, your contacts, Gmail messages, Calendar events, and other information from these applications and services on the web are synchronized with your phone. If you don't sign into a Google Account during setup, you will be prompted to sign in or to create a Google Account the first time you start an application that requires one, such as Gmail or Android Market™.

- If you have an enterprise account through your company or other organization, your IT department may have special instructions on how to sign into that account.

# Calls



## Making a call

- 1 From the Home screen, tap the **Phone Key**  to open the keypad.
- 2 Enter the number on the keypad. To delete a digit, tap the **Clear Key** .
- 3 Tap the **Call Key**  to make a call.
- 4 To end a call, tap the **End Key** .

### TIP


To enter “+” to make international calls, touch and hold .


## Calling your contacts

- 1 From the Home screen, tap the **Applications Key**  and then tap **Contacts**  to open your contacts.
- 2 Scroll through the contact list or tap the **Search** box and enter the first letter(s) of the contact you want to call.
- 3 In the list that is displayed, tap the contact you want to call.
- 4 In the Contact Info screen, tap the phone number you wish to call.

## Answering and rejecting a call

### When the screen is locked

When your phone rings, drag the **Answer** icon  to the right.

Drag the **Decline** icon  to the left to reject an incoming call. Drag the **Send msg** bar upwards if you want to send a message to the caller. If the caller is unknown, this **Send msg** bar is not available.

### When the screen is unlocked







When your phone rings, tap the **Answer Key** . Tap **Decline Key**  to reject an incoming call.

Tap the **Send msg Key** if you want to send a message to the caller. If the caller is unknown, the **Send msg Key** is not available.

## Adjusting the in-call volume

To adjust the in-call volume during a call, use the Volume Keys on the left side of the phone.

## Making a second call

- 1 During your initial call, tap the **Menu/Search Key**  and select **Add call** . Or tap **Dialpad** .
- 2 Dial the number or search your contacts.
- 3 Tap the **Call Key**  to connect the call.
- 4 Both calls will be displayed on the call screen. Your initial call will be put on hold.
- 5 Tap the Call entry on the screen to toggle between active calls or tap **Merge calls**  to merge the calls.
- 6 To end active calls, tap the **End Key** . If there is no active call, it will end the call on hold.

### NOTE

You will be charged for each call you make.

## Viewing your call logs


From the Home screen, tap the **Phone Key**  and the **Call log** tab.

You can view a complete list of all dialed, received, and missed voice calls.

### TIP


Tap any single call log entry to view the date, time, and duration of the call.

### TIP

Tap the **Menu/Search Key** , then tap **Delete all** to delete all the recorded items.

## Call settings



You can configure phone call settings, such as call forwarding, and other special features offered by your carrier.

- 1 From the Home screen, tap the **Menu/Search Key**  and tap **Settings**.
- 2 Tap **Call settings**.





# Contacts

You can add contacts on your phone and synchronize them with the contacts in your Google Account or other accounts that support syncing contacts.

## Searching for a contact

- 1 From the Home screen, tap the **Applications Key**  and then tap **Contacts**  to open your contacts.
- 2 Tap the **Search** field and enter the contact name using the keypad.



## Adding a new contact

- 1 From the Home screen, tap the **Phone Key**  and enter the new contact's number. Tap the **Menu/Search Key** , tap **Add to contacts** and then **Create new contact**.
- 2 If you want to add a picture to the new contact, tap . Choose from **Capture picture** or **Pick from Gallery**. Then browse for an image and select it.
- 3 Select the contact type by tapping .
- 4 Tap a category of contact information and enter the details about your contact.
- 5 Tap **Save** to save the contact entry.



## Favorite Contacts

You can classify frequently called contacts as favorites.

### To add a contact to your favorites

- 1 From the Home screen, tap the **Applications Key**  and then **Contacts**  to open your contacts.
- 2 Tap a contact to view its details.
- 3 Tap the star to the right of the contact's name. The star turns gold and the contact is added to your favorites.

### To remove a contact from your favorites list

- 1 From the Home screen, tap the **Applications Key**  and then **Contacts**  to open your contacts.
- 2 Tap the **Groups** tab and tap **Favorites**.
- 3 Tap a contact to view its details.
- 4 Tap the gold star to the right of the contact's name. The star turns grey and the contact is removed from your favorites.

# Messaging/Email


## Messaging

Your phone combines SMS and MMS into one intuitive, easy-to-use menu.

### Threaded box


Messages (SMS and MMS) exchanged with another party can be displayed in chronological order so that you can conveniently see an overview of your conversation.

### Sending a message

- 1 Tap **Messaging**  on the Home screen, then tap **New Message** to create a new message.
- 2 Enter a contact name or phone number in the **To** field. As you enter the contact name, matching contacts appear. You can tap a suggested recipient. You can also add multiple contacts.

#### ! NOTE

You will be charged for a text message for every person you send the message to.

- 3 Tap the text field to start entering your message.
- 4 Tap the **Menu/Search Key**  to open the options menu. Choose from **Call**, **Attach**, **Discard**, **Save to draft**, **Add Cc/Bcc**, and **More** (Insert smiley, All

messages, Keyboard settings).

- 5 Tap **Send** to send your message.
- 6 The message screen opens, with your message after your name. Responses appear on the screen. As you view and send additional messages, a message thread is created.

#### ! Warning

The 160-character limit may vary from country to country depending on how the SMS is coded and the language used in the message.

#### ! Warning

If an image, video, or audio file is added to an SMS message, it will be automatically converted into an MMS message and you will be charged accordingly.

#### ! NOTE

When you get an SMS message during a call, there will be an audible notification.

### Using smilies

Liven up your messages using smilies.

When writing a new message, tap the **Menu/Search Key** , then tap **More > Insert smiley**.

### Changing your message settings

Your phone's message settings are predefined, so you can send messages immediately. You can change the settings based on your preferences.

► From the Home screen, tap **Messaging**  > **Menu/Search Key**  > **Settings**.

### Email

You can use the **Email** application to read E-mail from providers other than Gmail. The E-mail application supports the following account types: POP3, IMAP and Microsoft Exchange ActiveSync (for Enterprise users).

### To open the E-mail application

► From the Home screen, tap the **Applications Key**  > **Email**.

The first time you open the **Email** application, a setup wizard opens to help you add an Email account.

### Microsoft Exchange Email Account

**Email address** – Enter the account email address.

**Username** – Enter the account username.

**Password** – Enter the account password.

**Domain** – Enter the account domain (optional).

**Server address** – Enter the server address.

**Use SSL** – Choose whether or not to use SSL for Microsoft Exchange.

### Other (POP3, IMAP) Email Account

**Email address** – Enter the account email address.

**Password** – Enter the account password.

**POP3 / IMAP4** – Select protocol type, either POP3 or IMAP4.

**Incoming server** – Enter the incoming email server address.

**Secure type** – TLS/SSL/Off.

**Server port number** – Normally each account's default number will be displayed.

**Mail server** – Enter the outgoing email server address.

**SMTP secure connection** – Choose from Off, SSL, or TLS.

**Server port number** – Normally each account's default number will be displayed.

Tap the **Next** button to connect the server.

**Setup Completed** page will appear. You will need to enter "name" for account display and My name. Then, tap **Done**.

The account will now appear in the list of accounts in your Email application.

## The Accounts Screen

The **Accounts** screen lists your **Combined Inbox** and each of your email accounts.

▶ Tap the **Applications Key**  > **Email**.  
The Account list appears.

### **TIP**

To make a shortcut to the Inbox of an account:

In the accounts list, touch and hold an email account. Then tap **Add to homescreen**.

You can tap an account to view its **Inbox**. The default account from which you send email is indicated with a checkmark.

## To open your Combined Inbox

If you have configured email to send and receive email from more than one account, you can view all messages sent to all accounts in your Combined Inbox.

▶ Tap **Email** > **Combined Inbox** (on the **Accounts** screen).


Messages in the **Combined Inbox** are color coded on the left, by account, using the same colors used for your accounts in the **Accounts** screen.

When a new email arrives in the inbox, there will be sound and vibration notification. Tap the email notification to end it.

## Composing and Sending Email

- 1 In the **Email** application, tap **Compose** .
- 2 Enter an address for the message's intended recipient. As you enter text, matching addresses will be offered from your contacts. Separate multiple addresses with blocks.
- 3 Tap the **Cc/Bcc** field to copy or blind copy to other contacts/email addresses.
- 4 Tap the text field and enter the text of the message.
- 5 Tap **Attach** to attach the file you want to send with your message.
- 6 Tap **Send** to send the message.

## Messaging/Email

If you are not ready to send the message, tap **Save** to save it in a **Drafts** folder. Touch a message in the **Drafts** folder to resume working on it. Your message will also be saved as a draft if you touch the **Back Key**  before sending it.

Tap **Cancel** to abandon and delete a message, including any saved drafts. If you are not connected to a network, for example if you're working in airplane mode, the messages you send are stored in your **Outbox** folder until you're connected to a network. If it contains any pending messages, the **Outbox** will be displayed on the **Accounts** screen.

### ! NOTE

The messages sent using an Exchange account will not be stored on the phone; they will be stored on the Exchange server itself. If you want to see your sent messages in the **Sent** folder, you may need to open the **Sent** folder and select **Refresh** from the options menu.

## Working with Account Folders

Each account has **Inbox**, **Outbox**, **Sent**, **Drafts**, **Trash** and **Junk** folders. Depending on the features your account service provider supports, you may have additional folders.

## Adding and Editing Email Accounts

### To add an email account

- 1 Tap the **Applications Key**  > **Email**.
- 2 Select **MS Exchange**, **Gmail**, or **Other**.

If an email account is already set up, the wizard is not activated automatically.

In this case, tap the **Menu/Search Key**  > **Add account** on the **Accounts** screen.

### To change account settings

- 1 Open the **Accounts** screen.
- 2 Tap the **Menu/Search Key**  > **Settings**.

### To delete an email account

- 1 Open the **Accounts** screen.
- 2 Touch and hold the account you want to delete.
- 3 Tap **Remove account** in the context menu and tap **Remove** in the dialogue box to confirm.



# Social Networking


With your phone, you can enjoy social networking and manage your micro-blog in on-line communities. You can update your current status, upload photos, and view your friends' status updates in real-time.

You can add your Facebook, Twitter, and MySpace accounts to your phone. If you don't have an account, you can visit their sites to set one up.

## NOTE

Additional costs may be incurred when connecting and using online services. Check your data charges with your network provider.

## Adding an account to your phone

- 1 From the Home screen, tap the **Menu/Search Key**  > **Settings** > **Accounts & sync**.
- 2 Tap **Add account**.
- 3 Tap any social networking service you want to use.
- 4 Enter your email address and password that you set up for your social networking account, then tap **Sign in**.

## Adding a social networking widget on the Home screen

If you add a social networking widget on your Home screen, the widget will show your status when your phone receives updates from the network.


You can also access the social community directly by tapping the widget.

- 1 Touch and hold an empty spot on the Home screen.

**NOTE** : If there is no available space on a particular Home screen panel, you won't be able to add any widget; you must delete or remove an item before you can add another item. In this case, you have the option of switching to another Home screen panel.

- 2 When various Widgets appear, scroll through the widget and tap **Social+** .

### Viewing and updating your status


- 1 Go to the Home screen panel where the **Social+** widget is located. You can see the current status of social applications you set.
- 2 You can select each social application you'd like to view.  
Tap the arrow (for example,  on the upper right corner of the widget) and tap the social application you'd like to display.
- 3 Tap the **"What are you doing?"** field to update your status with comments or upload pictures.  
- Check all the social applications you'd like to update. It will simultaneously update all.
- 4 After entering comments and attachment (if any), tap **Post**.

#### ! TIP


You can use information about friends only in your social network(s) or sync all data to Contacts.

### Syncing accounts on your phone

You can sync information from your social networking accounts with your Contacts and other functions on your phone, if applicable.

- 1 From the Home screen, tap the **Menu/Search Key**  > **Settings > Accounts & sync**.
- 2 Check **Background data** and **Auto-sync**.
- 3 Tap the account you want to sync.
- 4 Check the sync options, such as **Sync Contacts**.  
A checkmark indicates that synchronization has been enabled.

### Removing accounts on your phone

- 1 From the Home screen, tap the **Menu/Search Key**  > **Settings > Accounts & sync**.
- 2 Tap the account(s) you want to delete, then tap **Remove account** (twice).

# Camera

To open the Camera application, tap **Camera**  on the Home screen.

## Getting to know the viewfinder

**Brightness** – This defines and controls of the amount of sunlight entering the lens.

Slide the brightness indicator along the bar, towards “-” for a lower brightness image, or towards “+” for a higher brightness image.

**Zoom** – Zoom in or zoom out. Alternatively you can use the Volume Keys.

**Camera Switch** - Allows you to switch between the front-facing and back-facing cameras.



**Video mode** – Slide this icon down to switch to video mode.


**Capture** – Allows you to take a photo.

**Gallery** – This enables you to access your saved photos and videos within the camera mode. Simply tap and your Gallery will appear on the screen.

**Settings** – Tap this icon to open the settings menu. See **Using the advanced settings** on page 40.

**Flash** – Allows you turn on the flash when taking a photo in a dark place.

### Taking a photo

- 1 From the Home screen, tap **Camera**.
- 2 Holding the phone horizontally, point the lens towards the subject you want to photograph.
- 3 A focus box will appear in the center of the viewfinder screen. You can also tap anywhere on the screen to focus on that spot.
- 4 When the focus box turns green, the camera has focused on your subject.
- 5 Tap the **Capture** button  lightly.

### Once you've taken the photo

Your captured photo will appear on the screen if Auto review is set to On (refer to Using the advanced settings).

**Share** Tap to share your photo as **SmartShare, Bluetooth, Email, Facebook, Gmail, Messaging, Picasa, Social+, Twitter, Wi-Fi Share**, or any other downloaded applications that is supported.

#### ! NOTE

Additional charges may apply when MMS messages are sent while roaming.

**Set as** Tap to use the image as **Contact icon** or **Wallpaper**.

**Rename** Tap to edit the name of the selected picture.



Tap to delete the image.



Tap to take another photo immediately. Your current photo will be saved.



Tap to view the Gallery of your saved photos.

### Using the advanced settings

In the viewfinder, tap  to open the advanced options.

You can change the camera settings by scrolling the list. After selecting the option, tap the **Back Key** .

**Focus** – Tap to select the focus mode.

**Face tracking** : The camera detects and focuses on human faces automatically.

**Auto** : Allows the camera to focus automatically.

(The camera continuously focuses on the objects in the photo)

**Image size** – Tap to set the size (in pixels) of the picture you take. Select a pixel value from the following options: **8M(3264X2448), W6M(3264X1836), 5M(2560X1920), 3M(2048X1536), W3M(2304X1296), 1M(1280X960), W1M(1536X864).**

**Scene mode** – Select the color and light settings appropriate for the current environment.

**Normal** : Automatically adjusts according to the environment.

**Portrait** : Use this mode to capture people.

**Landscape** : Use this mode to capture natural scenery such as trees, flowers and sky.

**Sports** : Use this mode to capture sports scenery.

**Sunset** : Use this mode to capture the sunset scenery.

**Night** : Use this mode to capture the night scenery. Slow shutter speeds are used to detect night landscape.

**ISO** - Control the camera's sensitivity to light. Choose from **Auto**, **400**, **200**, and **100**.

**White balance** – Choose from **Auto**, **Incandescent**, **Sunny**, **Fluorescent**, and **Cloudy**.

**Color effect** – Choose a color tone for your new photo.

**Timer** – The self-timer allows you to set a delay after the shutter is pressed. Select **Off**, **3 sec**, **5 sec**, or **10 sec**. This is ideal if you want to be included in a photo.


**Shot mode** – Choose from **Normal**, **Continuous shot**, and **Panorama**.

**Shutter sound** – Select one of the four shutter sounds.

**Auto review** – If you set Auto review on, it will display the picture that was just taken automatically.

**Tag location** – Activate to use your phone's location-based services. Take pictures wherever you are and tag them with the location. If you upload tagged pictures to a blog that supports geotagging, you can see the pictures displayed on a map.

### ! NOTE

This function uses wireless networks. You need to checkmark Use wireless networks. From the Home screen, tap the **Menu/Search Key**  > **Settings > Location & security > Use wireless networks**.



– Restore all camera default settings.



– Tap whenever you want to know how a function operates. This will provide you a quick guide.

### ! NOTE

- When you exit the camera, some settings will return to their defaults. Check the camera settings before you take your next photo.
- The settings menu is superimposed over the viewfinder, so when you change elements of the image color or quality, you will see a preview of the image change behind the settings menu.

### Viewing your saved photos

You can access your saved photos from within the camera mode. Just tap the **Gallery** icon  and your Gallery will be displayed.

#### TIP

Flick left or right to view other photos or videos.



— Tap to see a slide show of your images.



— Tap to access the following options:

**Share** - to share the picture via various methods such as Bluetooth or Messaging.

**Delete** - to delete the picture.

**More** - to access options such as **Details**, **Set as**, **Crop**, **Rotate Left**, or **Rotate Right**.

### Setting a photo as wallpaper

- 1 Tap the photo you want to set as wallpaper to open it.
- 2 Tap the screen to open the options menu.
- 3 Tap **Menu** > **More** > **Set as** > **Wallpaper**.
- 4 Crop the image as desired and tap **Save**.

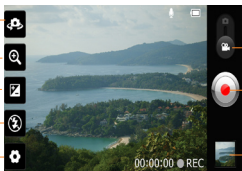
# Video Camera

## Getting to know the viewfinder

**Brightness** – This defines and controls of the amount of sunlight entering the lens. Slide the brightness indicator along the bar, towards “-” for a lower brightness video, or towards “+” for a higher brightness video.

**Zoom** – Zoom in or zoom out. Alternatively you can use the Volume Keys.

**Camera Switch** - Allows you to switch between the front-facing and back-facing cameras.



**Camera mode** – Slide this icon up to switch to camera mode.

**Record** – Allows you to start recording.




**Gallery** – This enables you to access your saved photos and videos from within the video camera mode. Simply tap and your Gallery will appear on the screen.

**Settings** – Tap this icon to open the settings menu. See **Using the advanced settings** on page 44.

**Flash** – Allows you turn on the flash when recording video in a dark place.

## Video Camera

### Recording a video

- 1 From the Home screen, tap **Camera** and slide the camera mode button to change to Video mode. The Capture icon will change to .
- 2 The video camera's viewfinder will appear on the screen.
- 3 Holding the phone horizontally, point the lens towards the subject of the video.
- 4 Tap the **Record** icon  once to start recording.
- 5 A timer showing the length of the video is displayed at the bottom right corner of the screen.
- 6 Tap the **Stop** icon  to stop recording.

### After recording a video

A still image representing your video will appear on the screen if Auto review is set to On.

**Play**

Tap to play the video.

**Share**

Tap to share your photo as **SmartShare, Bluetooth, Email, Facebook, Gmail, Messaging, Wi-Fi Share, YouTube**, or any other downloaded applications that is supported.

### NOTE

Additional charges may apply when MMS messages are downloaded while roaming.

**Rename**

Tap to edit the name of the selected video.



Tap to delete the video you just recorded. Tap **OK** to confirm it. The viewfinder will reappear.




Tap to record another video right away. Your current video will be saved.



Tap to view the Gallery of your saved videos.

### Using the advanced settings

Using the viewfinder, tap  to open the advanced options.

Adjust the video camera settings by scrolling the list. After selecting the option, tap the **Back Key** .

**Video size** – Tap to set the size (in pixels) of the video you record. Select the video size from **Full HD(1920X1088)**, **HD(1280X720)**, **TV(720X480)**, **VGA(640X480)**, **QVGA(320X240)**, and **QCIF(176X144)(MMS)**.





**White balance** – The white balance ensures any the white areas in your video are realistic. To enable your camera to adjust the white balance correctly, you may need to determine the light conditions. Choose from **Auto**, **Incandescent**, **Sunny**, **Fluorescent**, and **Cloudy**.

**Color effect** – Choose a color tone to use for your new video.


**Audio recording** – Choose **Mute** to record a video without sound.

**Auto review** – If you turn Auto review on, it will play back the video you just recorded automatically.

 – Restore all video camera default settings.

 – Tap whenever you want to know how a function operates. This will provide you a quick guide.

## Watching your saved videos

- 1 In the viewfinder, tap .
- 2 Your Gallery will appear on the screen.
- 3 Tap a video to play it automatically.

## Adjusting the volume when viewing a video

To adjust the volume of a video while it is playing, use the Volume Keys on the left side of the phone.

# Multimedia

You can store multimedia files to a microSD card to have easy access to all your image and video files.


## Gallery

Tap the **Applications Key**  > **Gallery**.


### View mode

When you open the Gallery, your photos will be presented in Folder view. Once you open a folder, your photos will be in Grid view. When you tap a photo from Grid view, it will be displayed in Full view.


### Calendar View

In Folder view, tap  to change to the Calendar view. The calendar will open and you will see with photos taken on the days.

### Timeline view

The phone's **Gallery** provides a timeline view of your photos and videos. When viewing a folder, drag  to the right. The date you took your photos will be displayed starting with the most recent. If you select a specific date, all the photos you took on that day will be grouped together.

## Gallery menu options

Tap a photo and tap the **Menu/Search Key**  to see the following available options: **Share**, **Delete**, and **More**. Tap **More** to access **Details**, **Set as**, **Crop**, and **Rotate Left**, and **Rotate Right**.

## Sending a photo

- 1 To send a photo, touch and hold the photo you want.
- 2 Tap **Share** and choose from any of the available applications.
- 3 When you choose **Email**, **Gmail** or **Messaging**, your photo will be attached to a message, which you can then write and send normally.

### TIP

If you have a social networking account set up on your phone, you can share your photo with that social networking community.

## Sending a video

- 1 To send a video, touch and hold the video you want.
- 2 Tap **Share** and choose from any of the available applications.
- 3 When you choose **Email**, **Gmail** or **Messaging**, your video will be attached to a message, which you can then write and send normally.

## Using an image

Choose images to use as wallpaper or identify callers.

- 1 Touch and hold a photo, then tap **More** > **Set as**.
- 2 Choose from **Contact icon** or **Wallpaper**.

## Viewing a slideshow

To view a slideshow of your photos, open the Gallery and tap a photo. Once the photo is displayed, tap the screen to see the menu. Tap **Slide show** to begin the slideshow of all your photos.

## View photo details

You can view a photo's detailed information, such as the name, date, time, size, and type.


While viewing a photo, tap **Menu** > **More** > **Details**.

## Transferring files using USB mass storage devices

To transfer files using a USB device:

- 1 Connect the phone to a PC using a USB cable.
- 2 The USB connection mode prompt is displayed.
- 3 Tap **Mass storage** and **OK** to confirm.
- 4 You can view the phone content on your PC and transfer the files.

### NOTE

If you don't want the USB connection mode prompt to be displayed, tap **Don't ask again** on the USB connection mode prompt or turn off **Always Ask (Applications Key  > Settings > Connectivity > Always ask)**.

### Music

Your phone has a music player that lets you play all your favorite tracks. To access the music player from the Home screen, tap the **Applications Key**  and tap **Music**.

### How to save music/video files to the phone

**Connect your phone to the PC using the USB cable.**

You'll receive a notification that the USB is connected and the USB connection mode prompt is displayed. Tap **Mass storage** and **OK**. Then open the folder you wish to view from your computer.

**Save music or video files from the PC to the phone's removable storage.**

- You may copy or move files from the PC to the phone's removable storage using a card reader.
- If there is a video file with a subtitle file (.smi file with the same name as the video file), place them in the same folder to display the subtitle automatically when playing the

video file.






- When downloading music or video files, copyright must be secured. Please note that a corrupted file or file with a wrong extension may cause damage to the phone.

### How to play music/video files on the phone

#### Playing music/video files

Locate the file you want in the Gallery or Music applications and tap it to play it.

#### Playing a song

- 1 From the Home screen, tap the **Applications Key**  and tap **Music**.
- 2 Tap the **Songs** tab.
- 3 Tap the song you want to play.
- 4 Tap  to pause the song.
- 5 Tap  to skip to the next song.
- 6 Tap  to go back to the beginning of the song. Tap  twice to go back to the previous song.

To change the volume while listening to music, press the Volume Keys on the left side of the phone.

To display the options for a song, touch and hold any song in the list. You will see the following options: **Play, Add to playlist, Delete, Share, Search,** and **Details.**


## Working with Playlists

You can create playlists to organize your music files into sets of songs, which you can play in the order you set or in a shuffle.

### To create a playlist


- 1 When viewing a list of songs in the library, touch and hold the first song you want to add to the new playlist.
- 2 Tap **Add to playlist.**
- 3 Tap **New playlist.**
- 4 Enter a name for the playlist, then tap **Save.**

The new playlist is added to the **Playlists** library.

You can also add the song that is playing in the Playback screen as the first song in a playlist by pressing the **Menu/Search Key** , then tapping **Add to playlist** or tapping **Save as**

**playlist** to save all the songs in an album that you're playing as a playlist.

### To remove a song from a playlist

- 1 Open a playlist.
- 2 Touch and hold the song you want to remove, then tap **Remove** or when viewing the currently playing playlist, tap the **Menu/Search Key** , then tap **Clear playlist** to remove all the songs from the current playlist.

### To rename or delete a playlist

- 1 Open the **Playlist** library.
- 2 Touch and hold the playlist to display the options menu, then tap **Delete** or **Rename.**

### NOTE

Music file copyrights may be protected by international treaties and national copyright laws. Therefore, it may be necessary to obtain permission or a licence to reproduce or copy music. In some countries, national laws prohibit



private copying of copyrighted material. Before downloading or copying the file, please check the national laws of the relevant country concerning the use of such material.

### Using SmartShare

**SmartShare** uses DLNA (Digital Living Network Alliance) technology to share digital content through a wireless network.

Both devices must be DLNA certified to support this feature.

#### To turn SmartShare on and allow sharing contents

- 1 Tap the **Applications Key**  > **SmartShare**.
- 2 Tap the **Menu/Search Key**  > **Settings**.
- 3 Tap the **Discoverable** checkbox to turn on.
  - Tap **Always accept request** to automatically accept sharing requests from other devices.
  - Tap **Receive files** to allow automatically allow upload files to my phone from other devices.
- 4 Under the My shared contents section, tap each type of content you would like to share.

Choose from **Pictures**, **Videos**, and **Music**.





- 5 **SmartShare** is now activated and ready to share contents.

#### To share contents from remote content library to other devices

Let your renderer device (e.g. TV) play multimedia contents from your remote content library (e.g. PC)

##### ! NOTE

Make sure that the DLNA functionality of your devices is properly configured (e.g. TV and PC)

- 1 Tap the **Applications Key**  > **SmartShare**.
- 2 Tap  and select the device from renderer device list.
- 3 Tap  and select the device of the remote content library.
- 4 You can browse the content library.
- 5 Tap a content thumbnail or tap the **Menu/Search Key**  and tap **Play**.

#### To share contents from your phone to your renderer device(e.g. TV)

##### ! NOTE

Make sure that your renderer device is properly configured

- 1 While browsing your pictures or videos using the **Gallery** application, touch and hold to select files. Then you will be able to select multiple files to be shared.
- 2 Tap **Share > SmartShare**. **SmartShare** is automatically launched with the selected files.
- 3 Select the device from the renderer device list to play the files.



#### ! NOTE

Follow the similar steps to use the Music player, Video player, Camera to share contents.

#### ! NOTICE

Check that your device is connected with your home network using Wi-Fi connection to use this application. Some DLNA enabled devices (e.g. TV) support only the DMP feature of DLNA and will not appear in the renderer device list. Your device might not be able to play some contents

#### To download contents from remote content library

- 1 Tap the **Applications Key**  > **SmartShare**.
- 2 Tap  and select the device of the remote content library.

- 3 You can browse the content library.
- 4 Tap a content thumbnail and then tap the **Menu/Search Key**  > **Download**.



#### ! NOTICE

A few types of contents are not supported.

#### To upload contents from my phone to remote content library

#### ! NOTE

Make sure that SD card is correctly mounted and the **Receive files** in settings menu is checked.

- 1 Tap the **Applications Key**  > **SmartShare**.
- 2 Tap  and select **My phone**.
- 3 You can browse the content library.
- 4 Touch and hold a content thumbnail and then tap **Upload**.
- 5 Select a device of remote content library to be uploaded.

#### ! NOTICE

Some DLNA enabled devices do not support DMS upload functionality and will not be uploaded. A few types of contents are not supported.

# Google Applications



## About Google applications

Google applications, including mobile versions of Gmail, Google Talk, Google Calendar, and Google Maps, are loaded on your phone.

- 1 To set up a Google account, tap any Google application, enter your user name and password and sign in.
- 2 After signing in, your contacts, email, and calendar in your Google account will automatically synchronize with your phone.

## Google Maps™

### To open Google Maps and view your location


- 1 From the Home screen, tap the **Applications Key**  and tap **Maps**.
- 2 Tap the **My location** icon  on the screen.

The map centers on a blue arrow that indicates your location. A blue circle around the arrow indicates that your actual location is within the circle.

### To get an address and additional information for a location

- ▶ Touch and hold a location on the map. A balloon with the address and a thumbnail from Street View (if available) opens over the location.
- ▶ Tap the balloon to access additional options.


### To view map, satellite, or traffic layers

- ▶ Tap the **Layers** icon  on the map and select a layer option. You can choose from Traffic, Satellite, Terrain, Latitude, and others.

## Searching For Locations and Places

You can search for a location and view it on a map. You can also search for places on the map that you're viewing.

### To search for a location

- 1 While viewing a map, tap the **Search** field at the top of the screen. You can also tap the **Menu/Search Key**  and tap **Search**.



- 2 In the search box, enter the place you're looking for. You can enter an address, a city, or a type of business or establishment. For example, "theater in New York".

- 3 Tap the **Search** icon .

Markers with letter labels indicate search matches on the map.

### NOTE

Location information might be inaccurate if GPS and Wi-Fi is turned off. Please make sure that GPS and Wi-Fi is turned on.

## Getting Directions

### To get directions

- 1 While viewing a map, tap the **Menu/Search Key**  and tap **Directions**.

- 2 Enter a starting point in the top text box and your destination in the bottom text box.

To reverse directions, tap the **Menu/Search Key**  and tap **Reverse Start & End**.

- 3 Tap the icon for car, public transit bicycling, or walking directions.
- 4 Tap **Get directions**. The directions to your destination appear in a list.

### To view turn-by-turn directions in a list

You can view each turn in your route as a list of written directions.


When viewing a list of directions, tap the **Navigation** icon  to view turn-by-turn directions in Navigation View.

### To search for locations along your route

You can search for businesses, points of interest, and other features along your route. When you search while navigating, your results include locations along your route, rather than locations that are near your current location.

- ▶ Touch and hold the **Menu/Search Key**  and search for locations of interest.

The results are displayed as markers along your route; the first result is labeled. You can tap a label for more information about the marker.

- ▶ When you're finished, tap the **Navigation** icon  to return to Navigation View.

## My Places

**My Places** bookmarks your favorite places, such as addresses or local businesses, to be able to find them quickly later.

### To view My Places

While viewing a map, tap the **Menu/Search Key**  and tap **My Places**.

### Clear Map

Clear any information, such as routes and search results, from the map.

#### To clear a map

While viewing a map, tap the **Menu/Search Key**  and tap **Clear Map**.

### Latitude

#### Finding Your Friends with Google Latitude™

Google Latitude lets you and your friends view each others' locations on maps and get directions to your friends' locations using Google Latitude. Your location is not shared automatically. It is by invitation only.

You must join Latitude and then invite your friends to view your location or accept invitations from your friends.


#### To join Latitude

▶ While viewing a map, tap the **Menu/Search Key**  and tap **Join Latitude**.

The first time you join Latitude, you're prompted to accept or reject the Google privacy policy. After you've joined Latitude, the Join Latitude option changes to **Latitude**.

#### To open Latitude

After you join Latitude, you can open it to find your friends and view their updates.

▶ While viewing a map, tap the **Menu/Search Key**  and tap **Latitude**.

#### To invite friends to share their locations

After you join Latitude, you can start sharing your location with your friends. Only friends whom you have explicitly invited or accepted can see your location.

- 1 Open Latitude, tap the **Menu/Search Key**  and tap **Add friends**.
- 2 Tap **Select from Contacts** or **Add via email address** in the menu that opens.
- 3 Tap **Add friends** at the bottom of the screen. If your friends already use Latitude, they receive an email request and a notification on Latitude. If they have not yet joined Latitude, they receive an email inviting them to sign in to Latitude with their Google Account.


### Places

#### To find places

Tap the **Places** icon  while in Google Maps to find different venues, such as gas stations, coffee, bars, restaurants, etc.

Once you select a category, you will see a list of closest matches, including their distance, compass bearing, description and even user reviews. You can customize your own location search categories, and even add the Places icon to your Home screen.

### ! Tip

While viewing a map, tap the **Menu/Search Key**  > **More** for the following options: **Settings** and **Help**.

## Market™

Android Market™ lets you browse through and download thousands of fun and useful applications and games. You can check other users' comment regarding an application or you can post your own comments. If you install applications and games from Android Market™, they appear in the phone's menu below the preloaded applications, and you can find them by scrolling down with your finger. You can open downloaded applications from the Market by tapping the **Menu/Search Key**  > **My Apps**.

### To download applications and games

- 1 From the Android Market home page, tap a category on the left side of the screen. Choose from **Apps**, **Books**, **Movies**, and **Games**.

- 2 Scroll left and right to view subcategories.
- 3 Tap an application to open its details screen.
- 4 The descriptions and the prices of the application will be displayed.
- 5 Tap the **price** button at the top right of the screen for paid applications. Then tap **Accept & buy**. For free applications, tap **Install** or **Download**. Then tap **Accept & download**. The applications will then be downloaded and installed.

### ! NOTE



To purchase a paid app, you'll need to set up a payment method with Google Checkout™. You have the option to use a credit card or charge to your carrier bill.



### ! NOTE

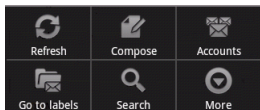
When you want to exit a game or application, use the Home or Back Key, which will return you to the Home screen. Or select Menu (or Options) within the game or application and select Exit. (Exit option may vary by game/application). Ending applications that continue to run in the background (after going back to the Home screen) will help conserve battery life and reduce unwanted data usage.

### Gmail™

Gmail™ can be configured when you first set up your phone. Depending on your synchronization settings, Gmail™ on your phone is automatically synchronized with your Gmail™ account on the web. The inbox conversations list is your default Gmail™ view.

Tap the **Menu/Search Key** , then tap **Refresh** to send or receive new email and to synchronize your email with your Gmail™ account on the web. Tap the **Menu/Search Key**  for the following additional options: **Compose, Accounts, Go to labels, Search** and **More (Settings, Help, About)**.

Tap the **Menu/Search Key**  and tap **Accounts > Add account** to add another Gmail account. You can also change the settings by tapping the **Menu/Search Key**  > **More > Settings** from any screen within an account. Then choose the account for which you want to change the settings.




### Google Talk™

Google Talk™ is Google's instant messaging program. It lets you communicate with other people who also use Google Talk™.


Tap the **Menu/Search Key**  for the following available options.


**All friends**  – Displays all friends you can communicate with.

**Add friend**  – Send invitations to chat.

**Search**  – It searches for contacts to chat with or any chat records that contain the word(s) you entered.

**Sign out**  – Sign out from chat. When you tap the Talk icon from the Home screen, you will be signed in automatically if you activate **Automatically sign in**.

**Settings**  – Allows you to adjust various settings.

**More**  – Choose from **End all chats** to close all the current chats, **Invites** to see a list of friends you have invited to chat, **Blocked** to view a list of friends you have blocked, or **Help** to view the Google Talk help web page.

### Changing Google Talk Settings

You can configure Google Talk to send you a notification of each message that you receive in a chat and also to sound a ringtone or vibrate the phone.

You can also configure Google Talk to sign you in automatically when you turn on your phone, and you can set whether the mobile indicator is displayed next to your name in other people's Friends lists.

## To configure notifications for new Google Talk messages

- 1 From the Friends list, tap the **Menu/Search Key** , then tap **Settings**.
- 2 Checkmark **Invitation notifications** to receive a notification in the Status Bar when a new chat message arrives.
- 3 Tap **Notifications** in the Text chat settings and Voice & video chat settings sections to receive notifications in the Status Bar when you receive new chats.
- 4 Tap **Ringtone** in the Text chat settings and Voice & video chat settings sections to choose a ringtone that will ring to notify you of a new chat.
- 5 Tap **Vibrate** in the Text chat settings and Voice & video chat settings sections to choose the vibration setting when you receive a notification of a new chat.


## To show or hide the mobile indicator to friends

- 1 From the Friends list, tap the **Menu/Search Key** , then tap **Settings**.
- 2 Checkmark or uncheck **Mobile indicator**. If Mobile indicator is checkmarked, your friends see an outline of an Android™ next to your name in their Friends list when you are signed into Google Talk on an Android phone.


## To set whether you sign into Google Talk automatically

- 1 From the Friends list, tap the **Menu/Search Key** , then tap **Settings**.
- 2 Checkmark or uncheck **Sign in automatically**. When Sign in automatically is checked, you are signed into Google Talk when you turn on your phone.



## To set Google Talk to change your status

- 1 From the Friends list, tap the **Menu/Search Key** , then tap **Settings**.
- 2 Checkmark or uncheckmark **Automatic away status**.  
When Automatic away status is checkmarked, your status will automatically be changed to Away when the screen is turned off.

## Setting the alarm

- 1 From the Home screen, tap the **Applications Key**  and tap **Alarm/Clock**.
- 2 To add a new alarm, tap the  tab (if necessary).
- 3 Tap **New alarm** and set the alarm time.
- 4 Set any desired options and tap **Save**.
- 5 Tap the **Menu/Search Key**  to add another alarm or adjust the alarm settings.

## Using the calculator

- 1 From the Home screen, tap the **Applications Key**  and tap **Calculator**.
- 2 Tap the number keys to enter numbers.
- 3 For simple calculations, tap the function you want (+, -, x, or ÷), followed by =.
- 4 For more complex calculations, tap the **Menu/Search Key** , tap the **Advanced panel**, then choose an option.


## Adding an event to your calendar

### NOTE

You must create a Google account to use Calendar.

- 1 From the Home screen, tap the **Applications Key**  and tap **Calendar**.
- 2 To view an event, tap the date. The events occurring on that date are displayed below the Calendar in Month view. Tap the event to view its details. If you want to add an event, tap  at the top right corner of the Calendar.
- 3 Tap the **Event name** field and enter the event name. Check the date and enter the start and end time you want your event to begin and finish.
- 4 Tap the **Event location** field to enter the location.
- 5 To add a note to your event, tap the **Event description** field and enter the details.
- 6 To repeat the event, set **Repetition**, and set **Reminders**, if necessary.
- 7 Tap **Save** to save the event in the calendar. A colored square in the calendar will mark all days that have saved events. An alarm will sound at the event start time if you set it.

## Changing your calendar view


- 1 From the Home screen, tap the **Applications Key**  and tap **Calendar**.
- 2 At the top of the Calendar, tap **Month**, **Week**, **Day**, or **Agenda**.

## Polaris Office



With Polaris Office, you can view, create and edit document files on your device. The loaded files can be from microSD cards of your device, or from downloaded email attachments.

The Polaris Office application supports the following file formats: txt, doc, docx, xls, xlsx, ppt, pptx, pdf.


## Create a New Document

- 1 From the Home screen, tap the **Applications Key**  > **Polaris Office**.
- 2 Register your name and email address on the User registration page. If you want to skip the registration process, tap **Later**.
- 3 Tap **My folders** for folders and documents on your microSD card.
- 4 Tap the **Menu/Search Key**  > **New** to start a new document.
- 5 Tap a document type.
- 6 Enter contents in the document using the tools at the bottom of the screen and the

on-screen keyboard.


- 7 When you're done working on the document, tap the **Menu/Search Key**  > **Save** (or **Save as** to enter a new document name) to save.
- 8 Tap the **Back Key**  to exit.

## View and edit a document on your device




- 1 From the Home screen, tap the **Applications Key**  > **Polaris Office**.
- 2 Tap **My folders** for folders and documents on your microSD card.
- 3 Move to the folder that contains the file that you want to open if it is not in the root directory.
- 4 Tap the document that you want to view or edit.

### NOTE

You can also open an attachment in an email by tapping the attachment in the message.


- 5 The document opens for you to view. If you want to edit it, tap the **Menu/Search Key**  and then tap **Edit mode**.
- ▶ To move between pages or pan through the document, scroll in the corresponding direction.

## Utilities

- ▶ To change the zoom level, tap **Zoom** , then tap the zoom level you want or simply pinch-to zoom to achieve the zoom level you want.
  - ▶ Use the toolbar at the bottom of the screen to edit the document (Word, Excel, or PowerPoint file).
  - ▶ Tap the **Menu/Search Key**  for the following additional menu options : **Save, Read mode, View, Insert, Format, or More (Customize toolbar, Settings)**.
- 6 When you're finished editing, tap **Save**. Then tap the **Back Key**  to exit.


### Polaris Office document tools

The Polaris Office application has a toolbar that appears automatically when you create a document.

- 1 To display the toolbar in an existing document, tap the **Menu/Search Key**  and then tap **Edit mode**.
- 2 Tap a toolbar icon and the corresponding tool options will be displayed in a pop-up balloon for you to tap and use.
- 3 To hide the tool options pop-up balloon, tap the toolbar icon again. Left and right arrows on the toolbar indicate that you can scroll horizontally for more icons. The


tools in the toolbar vary depending on the document type.

### Manage documents online

- 1 From the Home screen, tap the **Applications Key**  > **Polaris Office**.
- 2 Tap **Add account** under the Web section, then tap **Box.net** for access to your Box.net online account.
- 3 Enter your user name and password to access your account, then tap **Add**.
- 4 View and manage your documents on the server as desired.

### Voice Search

You can search by voice and complete other voice actions, such as calling or texting a contact, sending an email, creating a note or getting directions with just a simple tap of the Voice Search icon.

- 1 From the Home screen, tap the **Applications Key**  > **Voice Search**.
- 2 Wait for the "Speak now" prompt, then say your query.
- 3 For a query, the search results will be displayed in the web browser. Tap the result you want or continue searching.



## Voice Dialer

You can search for and dial a contact by speaking, rather than by manually dialing a contact.

- ▶ This feature may be unavailable depending on your region.
- ▶ Your device can recognize only American English commands.
- ▶ Recognized languages may vary depending on your region.

### To place a call by speaking




- 1 From the Home screen, tap the **Applications Key**  > **Voice Dialer**.
- 2 Say "**Call**" or "**Dial**" followed by the name of the contact to call.

If Voice Dialer finds a match, it dials the contact's default number.


## Voice recorder

Use the voice recorder to record voice memos or other audio files.

### Recording a sound or voice

- 1 From the Home screen, tap the **Applications Key**  and tap **Voice Recorder**.
- 2 Tap  to begin recording.
- 3 Tap  to end recording.

### NOTE

Tap  to access your voice recordings. You can listen to the saved recordings.

### Sending the voice recording

- 1 Once you have finished recording, you can share the audio clip. Tap **Share**.
- 2 Choose from **Bluetooth**, **Email**, **Gmail**, **Messaging**, **Wi-Fi Share**, or any other downloaded applications that is supported. When you select **Email**, **Gmail** or **Messaging**, the voice recording will be added to a message that you can write and send normally.

# The Web

## Browser

The Browser gives you a fast, full-color world of games, music, news, sports, entertainment, and much more, right on your mobile phone.

### ! NOTE


Additional charges apply when connecting to these services and downloading content. Check data charges with your network provider.

### < Tool bar >


The tool bar at the bottom of the screen makes it easier to use the Browser.

The Browser that allows you to look at web pages similarly to how you would on a computer.

 **Back** – Moves to the previous web page.

 **Forward** – Used in conjunction with the Back Key. This allows you to go back and forth between web pages without opening multiple windows.

 **Windows** – Shows all your open windows.


 **New window** – Opens a new window.

 **Settings** – Opens the Browser settings.

## Using options

Tap the **Menu/Search Key**  to view the following options:

 **Read it later** – To add the current web page in Read it later.

 **Add RSS Feed** – To add your favorite web page. When a new item appears on the web site, you are automatically notified with Google Reader.

### ! NOTE

RSS (Really Simple Syndication) is a family of web feed formats used to publish frequently updated content, such as blog entries, news headlines or podcasts. An RSS document, called a feed, web feed or channel, contains either a summary of content from an associated website or its full text. RSS makes it possible for people to keep up-to-date with their favorite websites in an automated way that is easier than checking manually. The user subscribes to a feed by entering its link into the reader or clicking an RSS icon in a browser that starts the subscription process. The reader checks the user's subscribed feeds regularly for new content, and downloads any updates it finds. For unavailable RSS Feed web pages, the 'Add RSS Feed' icon menu will be disabled.



**Share page** – Tap to share the web page.



**Find on page** – Allows you to find text on the current web page.



**Select text** – To select text on the web page. Highlight the text you want with your finger. The highlighted text is copied to the clipboard and you can paste it anywhere that allows text to be entered.



#### More

- **Home page** – To move to the Home page.
- **Set home page** – To set the current page as your home page
- **Add shortcut to Home** - To add a shortcut the to web page to your Home screen.
- **Page info** – To view the web page details.
- **Downloads** – To view downloaded history.

#### TIP

To return to the previous web page, tap the **Back Key** .

## Adding bookmarks

- 1 Tap next to the URL field.
  - From **Thumbnail view**, tap **Add**, enter a name and URL, and tap **OK**.
  - From **List view**, tap **Add bookmark**, enter a name and URL, and tap **OK**.

## Changing the Browser settings

Tap and set any desired options.

# Settings

## Wireless & networks

This menu allows you to manage Wi-Fi and Bluetooth connections, portable hotspot and data tethering, airplane mode and VPN connections. To access this menu, from the Home Screen, tap **Menu/Search Key**  > **Settings** > **Wireless & networks**.

## Airplane mode


Airplane mode allows you to quickly turn off all wireless connections.

1 From the **Wireless & networks** screen, tap the **Airplane mode** checkbox to turn it on (a blue checkmark will appear).

2 Tap again to turn it off.

OR

1 From the Home Screen, swipe the Status Bar down to open the Notifications panel.

2 Tap  to turn on Airplane mode.

3 Tap again to turn it off.

OR

1 Press and hold the **Power/Lock Key**  and tap **Airplane mode**.

2 Press and hold the **Power/Lock Key**  and tap **Airplane mode** again to turn it off.

## Bluetooth

### Using Bluetooth

1 From the **Wireless & networks** screen, tap **Bluetooth** to turn on the Bluetooth setting.

2 Tap **Bluetooth settings** > **Scan for devices**.

3 Tap the name of the device you wish to pair with, and then tap **Pair** to pair and connect.


### TIP

Please consult documentation included with Bluetooth device for information on pairing mode and passcode (typically 0 0 0 0 – four zeroes).


### How to send data from your phone via Bluetooth

You can send data via Bluetooth by running a corresponding application, not from Bluetooth menu, unlike regular mobile phones.

\* **Sending pictures:** Open the **Gallery** application and tap a picture. Then tap **Menu** > **Share** > **Bluetooth**. Check if Bluetooth is turned on and tap **Scan for devices**. Then tap the device you want to send data to from the list.


\* **Sending contacts:** Open the **Contacts** application. Tap the contact you want to share, tap the **Menu/Search Key**  and tap **Share > Bluetooth**. Check if Bluetooth is turned on and tap **Scan for devices**. Then tap the device you want to send data to from the list.

\* **Sending multi-selected contacts:** Open the **Contacts** application. To select more than one contact, tap the **Menu/Search Key**  and tap **Share**. Tap the contacts you want to send or tap **Select all**. Then tap **Share > Bluetooth**. Check if Bluetooth is turned on and tap **Scan for devices**. Then tap the device you want to send data to from the list.

\* **Connecting to FTP (Only the FTP server is supported on this handset):** From the Home screen, tap the **Menu/Search Key**  and tap **Settings > Wireless & networks > Bluetooth settings**. Make sure Bluetooth is turned on. Tap **Discoverable** to place a checkmark and make the phone visible to other Bluetooth devices. Then search for other devices. Find the service you want and connect to the FTP server.

### TIP

The supported Bluetooth version is Bluetooth 3.0 and certified by Bluetooth SIG. It is compatible with other Bluetooth SIG certified devices.


- If you want to search for this phone from other devices, from the Home screen, tap the **Menu/Search Key**  and tap **Settings > Wireless & networks > Bluetooth settings**. Make sure Bluetooth is turned on. Tap **Discoverable** to place a checkmark and make the phone visible to other Bluetooth devices for 120 seconds.
- Supported profiles are HFP/HSP, A2DP, AVRCP, OPP, FTP(Server) and PBAP.

### Wi-Fi



To use Wi-Fi on your phone, you need access to a wireless access point, or "hotspot." Some access points are open and you can simply connect to them. Others are hidden or implement other security features, so you must configure your phone in order to connect to them.

## Settings

### Turn on Wi-Fi


From the Home Screen, open the Notifications panel and tap  to turn Wi-Fi on.

OR

Tap the **Menu/Search Key**  and tap **Settings > Wireless & networks > Wi-Fi** .

### To connect to a Wi-Fi Network

Turn off Wi-Fi when you're not using it to extend the life of your battery.

- 1 From the Home screen, tap the **Menu/Search Key**  and tap **Settings > Wireless & networks > Wi-Fi settings**.
- 2 Tap **Wi-Fi** to turn it on and begin scanning for available Wi-Fi networks.
  - A list of available Wi-Fi networks will be displayed. Secured networks are indicated by a lock icon.
- 3 Tap a network to connect to it.
  - If the network is open, you are prompted to confirm that you want to connect to that network by tapping **Connect**.
  - If the network is secured, you are prompted to enter a password or other credentials. (Ask your network

administrator for details).

- 4 The Status Bar at the top of your screen will display an icon that indicates your Wi-Fi status.

### TIP

If you are not in range of a Wi-Fi network and use a network connection. Additional data charges may apply.

### NOTE

Access to the Internet and a wireless router required. As an added convenience, AT&T has shipped certain smartphones with Wi-Fi enabled as a default setting. Leaving Wi-Fi enabled when not connected to a Wi-Fi network may affect battery charge. Qualifying data plan required.

### NOTE

This device supports WEP, WPA/WPA2-PSK and 802.1x EAP. (Some EAP methods are not supported.) If your Wi-Fi service provider or network administrator sets encryption for network security, enter the key in the pop-up window. If encryption is not set, this pop-up window will not be shown. You can obtain the key from your Wi-Fi service provider or network administrator.

## Data Tethering

You can use your phone to provide a data connection to a computer by activating data tethering and connecting them with a USB cable.

### To tether your phone with your computer using the USB

- 1 Connect your phone to your computer with a USB cable.
- 2 The USB connection mode prompt is displayed. Tap **USB Tethering** and **OK** to confirm.
- 3 Tap **USB tethering**. A blue check mark will appear, indicating that the function is activated.

### ! NOTE

- Data Tethering requires an appropriate DataPro data plan. Devices connected by tethering use data from your DataPro plan. Plans are not unlimited and significant charges may be incurred if the included data allowance is exceeded. Performance may vary depending on the number of devices connected and other factors.
- You cannot access your phone's microSD card on your computer when using USB tethering.

- From the Home screen, tap the **Menu/Search Key**  and tap **Settings > Wireless & networks > Tethering & portable hotspot > USB tethering**.

## Mobile Hotspots

You can also use your smartphone to provide a mobile broadband connection for up to 8 other devices. Create a hotspot and share your connection.

To create a portable hotspot, tap the **Menu/Search Key**  > **Settings > Wireless & networks > Tethering & portable hotspot > Portable Wi-Fi hotspot**.

### ! NOTE

Mobile Hotspots requires an appropriate DataPro data plan. Devices connected to your Mobile Hotspot use data from your DataPro plan. Plans are not unlimited and significant charges may be incurred if the included data allowance is exceeded. Performance may vary depending on the number of devices connected and other factors. If you do not use a password, others will be able to use your Mobile Hotspot connection.

## Settings

### Call settings

You can set **Fixed dialing numbers**, **Voicemail** and **Other call settings** including **TTY mode**, **Hearing aids**, **Call reject**, **Caller ID**, **Call forwarding**, **Call Waiting**, **Send Messages**, and **Call duration**.

### Sound

Adjust sound, notification default settings and vibrate mode. You can also manage audible and Haptic feedback.

**Silent mode** - Checkmark this to silence all sounds except media and alarms.

**Vibrate** - Set the option of whether to let the phone feedback you with vibration.

**Volume** - Adjust the phone's volume settings to suit your needs and your environment.

**Phone ringtone** - Select the ringtone for incoming calls.

**Notification ringtone** - Select the ringtone for notifications such as new messages receipt or calendar events.

**Audible touch tones** - Select whether to hear tones when you use the dialpad.

**Audible selection** - Select whether to hear sound when you tap buttons, icons, and other

onscreen items.

**Screen lock sounds** - Select whether to hear sound when the screen is locked or unlocked.

**Haptic feedback** - Select whether to vibrate when touching buttons and keys.

### Display

**Brightness** - Adjust the brightness of the screen.

**Auto-rotate rotation** - Set to switch orientation automatically when you rotate the phone.

**Animation** - Set to allow animations.

**Screen timeout** - Set the time delay before the screen automatically turns off.

**Display font** - Change the display font.

**Screen optimization** - Change the resolution size of downloaded applications to fit the screen size.

**Widget background color** - Select the background color for widgets such as Calendar, Email, or Weather.

**Motion sensor calibration** - Allows you to reset calibration for motion sensor.



## Gesture

**Move cursor** - Checkmark to set the device to move the cursor by tapping on any side of the device to move the cursor while typing.

**Relocate item** - If you checkmark this, you can relocate an item to other Home screen panels by touching and holding an item and tilting the device.

**Mute** - Checkmark this to mute the incoming call by flipping the phone over while the phone is ringing.

**Snooze/ stop** - Checkmark this to snooze(stop) the alarm by flipping the phone over.

**Previous/Next item** - Checkmark this to display a previous/next photo in Gallery by tapping on the left/right side of the phone.

**Panning** - Checkmark this to pan the photo in Gallery. When the photo is zoomed in in the full view of a photo, touch and hold the center of the image around 1 second, then the phone will vibrate shortly. And then tilt the phone left or right to flow the image to see the rest of the image.

**Pause** - Checkmark this to pause the video by flipping the phone over.

## Location & security

**Use wireless networks** - If you check Use wireless networks, your phone will determine your approximate location by using Wi-Fi and mobile networks. When you check this option, you're asked whether you consent to allowing Google to use your location when providing these services.

**Use GPS satellites** - If you check Use GPS satellites, your phone will be determine your location to street-level accuracy.

**Set up screen lock** - Set an unlock pattern to secure your phone. Opens a set of screens that guide you through drawing a screen unlock pattern. You can set a PIN or Password instead of a Pattern or leave it as None.

When you turn on your phone or wake up the screen, you're prompted to draw your unlock pattern to unlock the screen.

**Screen lock timer** - Set the amount of idle time before the screen lock is enabled.

**Set up SIM card lock** - Set up SIM card lock or change SIM PIN.

**Visible passwords** - Select to show passwords as you type them or deselect to hide passwords as you type them.

## Settings

**Select device administrators** – Add or remove administrators.

**Use secure credentials** – Allows you to access secure certificates


**Install from SD card** – Choose to install encrypted certificates from your microSD card.

**Set password** – Set or change the credential storage password.

**Clear storage** - Clear credential storage of all contents and reset its password

### Using the Unlock Pattern, PIN, or Password

Set an unlock Pattern, PIN, or Password to secure your phone. To set the screen lock, follow the process below.

Tap the **Menu/Search Key** , tap **Settings > Location & security > Set up screen lock** and select between **Pattern**, **PIN** or **Password**.

#### ⚠ Warning

Take precautions when using an Unlock Pattern, PIN, or Password. It is very important that you remember the screen unlock information you set. You are allowed 5 attempts to enter your screen

unlock information. If you used up all 5 opportunities, you will have to wait 30 seconds to attempt unlocking the phone again.



### When you can't recall your Unlock Pattern, PIN, or Password:



If you logged into a Google account on the phone and failed to use the correct pattern 5 times, tap **Forgot Pattern?** You will be required to sign in with your Google account and prompted to create a new unlock pattern.

If you haven't created a Google account on the phone or you forgot your PIN or Password, you need to perform a hard reset.

#### ⚠ Caution

If you perform a hard reset, all user applications and user data will be deleted. Please remember to back up any important data before performing a hard reset.

- 1 Turn the power off.
- 2 Press and hold the following keys at the same time for 8 seconds: **Down Volume Key**  + **Power/Lock Key** .

- 3 Release the keys when the **FACTORY HARD RESET** screen appears.
- 4 Read the warning and press the **Power/Lock Key**  to confirm. Press any other key to cancel.
- 5 Press the **Power/Lock Key**  to confirm once more or press any other key to cancel.
- 6 Your device will perform a hard reset.

## Applications

**Unknown sources** - Checkmark to permit the installation of applications you get from Web sites, email or any other locations other than Android Market.

### Warning

Depending on the applications you install, the mobile phone may not operate correctly and could be illegally used to establish your location and gain access to personal information via the Internet.

To protect your phone and personal data, only download applications from trusted sources such as Android Market.

**Manage Applications** – Manage and remove installed applications.

**Running services** - Check currently running services

**Storage use** - View storage used by applications.

**Battery use** - Opens the list of items that have been using the battery

**Development** – Set options for application development.

## Accounts & sync

Allows you to enable Background data, Auto-sync and synchronize or add new accounts.

## Privacy

Allows you to perform a Factory data reset. Be careful as this will erase all your data.

## Storage

Allows you to check total available microSD card space and internal storage. You can also unmount the microSD card to safely remove it or format it.

## Language & keyboard

Select language and customize the input method and keyboard settings.

### Voice input & output

Set Voice recognizer settings and use the Text-to-Speech settings to configure the Android text-to-speech synthesizer, for applications that can take advantage of it.

### Accessibility

Use the Accessibility settings to configure any accessibility plug-ins you have installed on your phone.

#### NOTE

Requires additional plug-ins to become selectable.

### Connectivity







**Default connection mode** - Opens a dialog box to choose the default connection mode when connecting your phone to a PC via USB. Choose from Charge Only, Mass storage, PC software, or USB Tethering.

**Always ask** - Checkmark to have the phone ask you to choose which USB connection mode it should connect with to a PC.

### LG On-Screen Phone 2.0

On-Screen Phone allows you to view your mobile phone screen from a PC via a USB, Bluetooth, or Wi-Fi connection. You can also control your mobile phone from your PC, using the mouse or keyboard.

#### On-Screen Phone 2.0 icons

-  Launches LG Home Panorama or changes the On-Screen Phone preferences.
-  Connects your mobile phone to your PC, or disconnects it.
-  Rotates the On-Screen Phone window (only available with applications that support rotation).
-  Minimizes the On-Screen Phone window.
-  Maximizes the On-Screen Phone window.
-  Exits the On-Screen Phone program.

#### On-Screen Phone 2.0 features

- **Real-time transfer and control:** displays and controls your mobile phone screen when connected to your PC.
- **Mouse control:** allows you to control your mobile phone by using the mouse to click and drag on your PC screen.
- **Text input with keyboard:** allows you to

compose a text message or note using your computer keyboard.

- **File transfer (mobile phone to PC):** sends a file from your mobile phone (e.g. Gallery, Video Player, Music and Polaris Office) to your PC. Simply right-click on the file and drag it to send it to your PC.
  - **File transfer (PC to mobile phone):** sends files from your PC to your mobile phone. Just select the files you wish to transfer and drag and drop them into the On-Screen Phone window. The sent files are stored in the OSP folder.
  - **LG Home Panorama:** shows all of the work spaces of LG Home. You can easily organize icons or widgets and run an application by double-clicking the shortcut.
- NOTE:** Please make sure that LG Home is the default launcher. Some widgets may not work properly on the LG Home Panorama.
- **Real-time event notifications:** prompts a pop-up to inform you of any incoming calls or text messages, as well as alarm and event notifications.

## How to install On-Screen Phone on your PC

Visit LG Home (<http://www.lg.com/us>) and go to **Support > Mobile Phone Support > Select the Carrier (AT&T) > Select the Model (Nitro P930) > Click On-Screen Phone Software Download**. You can install the On-Screen Phone on your PC.

## How to connect your mobile phone to your PC

On-Screen Phone 2.0 provides USB, Bluetooth and Wi-Fi connection. Please follow the instruction on Connection Wizard of OSP program.

### ! NOTE

Please make sure that On-Screen Phone check box in **Settings > Connectivity > On-Screen Phone** is selected.

Please make sure that the battery may run out more quickly due to the current consumption if On-Screen Phone is connected via Wi-Fi.

When you connect your mobile phone to your PC via Mobile Hotspot and access to the Internet on the PC, additional data charges may be incurred depending on your DataPro data plan.


## Settings

Access to the Internet using Wi-Fi networks may not work well depending on the network's traffic. When you enlarge the On-Screen Phone window, the display on the screen might become slow.

### To check the phone-to-PC connection

Once the devices have been connected, drag down the Status Bar at the top of the Home screen to check the On-Screen Phone connection status.

### To disconnect your phone from your PC

Click  in the top left of the On-Screen Phone window. Alternatively, drag down the Status Bar at the top of the Home screen and select **On-Screen Phone connected > Disconnect On-Screen Phone**. Tap **Disconnect** in the disconnect dialog.

### Date and time

Set date, time, time zone and date and time formats.

### About phone

View legal information, check phone status and software versions, and perform the software update.

# Software Update

## Phone Software Update

This feature allows you to update the firmware of your phone to the latest version conveniently from the internet without the need to visit a service center.

For more information on how to use this function, please visit:

<http://update.lgmobile.com> or

<http://www.lg.com/common/index.jsp>.

As the mobile phone firmware update requires the user's full attention for the duration of the update process, please make sure to check all instructions and notes that appear at each step before proceeding. Please note that removing the USB cable or battery during the upgrade may seriously damage your mobile phone.

## LG Mobile Phone Software update via Over-the-Air (OTA)

This feature allows you to update the firmware of your phone to the newer version conveniently via OTA without connecting the USB data cable. This feature is only available if and when LG makes the newer version of the firmware available for your device.

First, you can check the software version on your mobile phone:

Tap the **Menu/Search Key**  > **Settings** > **About phone**. You can check the software version at the bottom of the list.

To perform the phone software update, tap the **Menu/Search Key**  > **Settings** > **About phone** > **Software update** > **Update now**.

### NOTE

Your personal data—including information about your Google account and any other accounts, your system/application data and settings, any downloaded applications and your DRM licence—might be lost in the process of updating your phone's software. Therefore, LG recommends that you back up your personal data before updating your phone's software. LG does not take responsibility for any loss of personal data.

## Software Update

### DivX Mobile

ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX, LLC, a subsidiary of Rovi Corporation. This is an official DivX Certified® device that plays DivX video. Visit [divx.com](http://divx.com) for more information and software tools to convert your files into DivX videos.

ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play purchased DivX Video-on-Demand (VOD) movies. To obtain your registration code, locate the DivX VOD section in your device setup menu. Go to [vod.divx.com](http://vod.divx.com) for more information on how to complete your registration.

**DivX Certified® to play DivX® video up to HD 720p, including premium content.**

DivX®, DivX Certified® and associated logos are trademarks of Rovi Corporation or its subsidiaries and are used under license.

### Dolby Mobile

Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.



Please check to see if any problems you have encountered with the phone are described in this section before taking the phone in for a service or calling the Customer Service Center.

**Q** How do I view the list of outgoing calls, incoming calls and missed calls?

**A** Tap the **Phone Key**  and tap the **Call log** tab

**Q** Why is the connection inconsistent or not audible in certain areas?

**A** When the frequency environment is unstable in a certain area, connection may be inconsistent and inaudible. Relocate to another area and try again.

**Q** Why is the connection inconsistent or abruptly disconnects even when established?

**A** When frequency is unstable or weak, or if there are too many users, a connection may be cut off even after it was established. Please try again later or attempt again after relocating to other areas.

**Q** Why won't the LCD turn on?

**A** Remove the battery, then replace it. Then turn on the power. If there is no change, fully charge the battery and try again.

**Q** Why does the phone heat up?

**A** The phone may get hot when there is a very long call duration, when games are played or even when surfing the Internet for a long time. This has no effect upon the life of the product or performance.

**Q** Why does the battery run out so quickly during normal use?

**A** This may be due to the user environment, a large number of calls or a weak signal.

**Q** Why is no number dialed when an Address Book entry is recalled?

**A** Check that the number has been stored correctly by using the Address book Search feature. Re-store them, if necessary.

**Q** The screen got frozen. How can I solve this problem?

**A** Press and hold the **Power/Lock Key**



for 10 seconds to turn it off. Then press and hold the **Power/Lock Key**



again for 3 seconds to reboot the phone.

# Accessories

There are a variety of accessories available for your mobile phone, some of which may be sold separately. You can select these options according to your personal communication requirements. Visit your local AT&T store or [www.att.com/wirelessaccessories](http://www.att.com/wirelessaccessories) for specific offerings.

## **NOTE**

- Always use genuine LG accessories. Failure to do this may invalidate your warranty.
- Accessories may be different in different regions; please check with our regional service company or agent for further enquiries.

# For Your Safety

## Important Information

This user guide contains important information on the use and operation of this phone. Please read all the information carefully for optimal performance and to prevent any damage to or misuse of the phone. Any changes or modifications not expressly approved in this user guide could void your warranty for this equipment. Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

## Before You Start

### Safety Instructions

**WARNING!** To reduce the possibility of electric shock, do not expose your phone to high humidity areas, such as the bathroom, swimming pool, etc.

#### **Always store your phone away from heat.**

Never store your phone in settings that may expose it to temperatures less than 32°F or greater than 104°F, such as outside during extreme weather conditions or in your car on a hot day. Exposure to excessive cold or heat will result in malfunction, damage and/or catastrophic failure.

#### **Be careful when using your phone near other electronic devices.**

RF emissions from your mobile phone may affect nearby in adequately shielded electronic equipment. You should consult with manufacturers of any personal medical devices such as pacemakers and hearing aides to determine if they are susceptible to interference from your mobile phone. Turn off your phone in a medical facility or at a gas station. Never place your phone in a microwave oven as this will cause the battery to explode.

**IMPORTANT!** Please read the TIA SAFETY INFORMATION before using your phone.

### Safety Information

Read these simple guidelines. Breaking the rules may be dangerous or illegal. Further detailed information is given in this user guide.

- ▶ Do not disassemble this unit. Take it to a qualified service technician when repair work is required.
- ▶ Keep away from electrical appliances such as TVs, radios, and personal computers.
- ▶ The unit should be kept away from heat sources such as radiators or cookers.
- ▶ Do not drop.

## For Your Safety

- ▶ Do not subject this unit to mechanical vibration or shock.
- ▶ The coating of the phone may be damaged if covered with wrap or vinyl wrapper.
- ▶ Use dry cloth to clean the exterior of the unit. (Do not use solvent such as benzene, thinner or alcohol.)
- ▶ Do not subject this unit to excessive smoke or dust.
- ▶ Do not keep the phone next to credit cards or transport tickets; it can affect the information on the magnetic strips.
- ▶ Do not tap the screen with a sharp object; otherwise, it may damage the phone.
- ▶ Do not expose the phone to liquid or moisture.
- ▶ Use the accessories like an earphone cautiously. Do not tap the antenna unnecessarily.

## microSD card information and care

- ▶ The microSD card cannot be used for recording copyright-protected data.
- ▶ Keep the microSD card out of the small children's reach.
- ▶ Do not leave the microSD card in extremely hot location.
- ▶ Do not disassemble or modify the microSD card.

## FCC RF Exposure Information

**WARNING!** Read this information before operating the phone.

In August 1996, the Federal Communications Commission (FCC) of the United States, with its action in Report and Order FCC 96-326, adopted an updated safety standard for human exposure to radio frequency (RF) electromagnetic energy emitted by FCC regulated transmitters. Those guidelines are consistent with the safety standard previously set by both U.S. and international standards bodies.

The design of this phone complies with the FCC guidelines and these international standards.

## **CAUTION**

Use only the supplied and approved antenna. Use of unauthorized antennas or modifications could impair call quality, damage the phone, void your warranty and/or result in violation of FCC regulations. Do not use the phone with a damaged antenna. If a damaged antenna comes into contact with skin, a minor burn may result. Contact your local dealer for a replacement antenna.

## **Body-worn Operation**

This device was tested for typical body-worn operations with the back of the phone kept 0.39 inches (1cm) between the user's body and the back of the phone. To comply with FCC RF exposure requirements, a minimum separation distance of 0.39 inches (1cm) must be maintained between the user's body and the back of the phone. Third-party belt-clips, holsters, and similar accessories containing metallic components should not be used. Body-worn accessories that cannot maintain 0.39 inches (1cm) separation distance between the user's body and the back of the phone, and have not been tested for typical body-worn operations may not comply with FCC RF exposure limits and should be avoided.

## **FCC Part 15 Class B Compliance**

This device and its accessories comply with part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device and its accessories may not cause harmful interference, and (2) this device and its accessories must accept any interference received, including interference that may cause undesired operation.

## **Part 15.105 statement**

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

## For Your Safety

If this equipment does cause harmful interference or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ▶ Reorient or relocate the receiving antenna.
- ▶ Increase the separation between the equipment and receiver.
- ▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ▶ Consult the dealer or an experienced radio/TV technician for help.
- ▶ Only use the battery for the system for which it is specified.
- ▶ Only use the battery with a charging system that has been qualified with the system per this standard. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazard.
- ▶ Do not short circuit a battery or allow metallic conductive objects to contact battery terminals.
- ▶ Replace the battery only with another battery that has been qualified with the system per this standard, IEEE-Std-1725-200x. Use of an unqualified battery may present a risk of fire, explosion, leakage or other hazard.

### Cautions for Battery

- ▶ Do not disassemble or open crush, bend or deform, puncture or shred.
- ▶ Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids, expose to fire, explosion or other hazard.
- ▶ Promptly dispose of used batteries in accordance with local regulations.
- ▶ Battery usage by children should be supervised.

- ▶ Avoid dropping the phone or battery. If the phone or battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.
- ▶ Improper battery use may result in a fire, explosion or other hazard.
- ▶ For those host devices that utilize a USB port as a charging source, the host device's user manual shall include a statement that the phone shall only be connected to products that bear the USB-IF logo or have completed the USB-IF compliance program.

### **Adapter (Charger) Cautions**

- ▶ Using the wrong battery charger could damage your phone and void your warranty.
- ▶ The adapter or battery charger is intended for indoor use only.

Do not expose the adapter or battery charger to direct sunlight or use it in places with high humidity, such as the bathroom.

### **Avoid damage to your hearing**

- ▶ Damage to your hearing can occur if you are exposed to loud sound for long periods of time. We therefore recommend that you do not turn on or off the handset close to your ear. We also recommend that music and call volumes are set to a reasonable level.
- ▶ If you are listening to music while out and about, please ensure that the volume is at a reasonable level so that you are aware of your surroundings. This is particularly imperative when attempting to cross the street.

# Safety Guidelines

## TIA Safety Information

Provided herein is the complete TIA Safety Information for Wireless Handheld phones. Inclusion of the text covering Pacemakers, Hearing Aids, and Other Medical Devices is required in the owner's manual for CTIA Certification. Use of the remaining TIA language is encouraged when appropriate.

## Exposure to Radio Frequency Signal

Your wireless handheld portable telephone is a lowpower radio transmitter and receiver. When it is ON, it receives and also sends out radio frequency (RF) signals.

In August, 1996, the Federal Communications Commissions (FCC) adopted RF exposure guidelines with safety levels for handheld wireless phones. Those guidelines are consistent with the safety standards previously set by both U.S. and international standards bodies:

ANSI C95.1 (1992) \*

NCRP Report 86 (1986)

ICNIRP (1996)

Those standards were based on comprehensive and periodic evaluations of the relevant scientific literature. For example, over 120 scientists, engineers, and physicians from universities, government health agencies, and industry reviewed the available body of research to develop the ANSI Standard (C95.1).

\* American National Standards Institute;  
National Council on Radiation Protection and Measurements; International Commission on Non-Ionizing Radiation Protection

The design of your phone complies with the FCC guidelines (and those standards).

## Antenna Care

Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the phone and may violate FCC regulations.

## Phone Operation

**NORMAL POSITION:** Hold the phone as you would any other telephone with the antenna pointed up and over your shoulder.



## **Tips on Efficient Operation**

For your phone to operate most efficiently:

- ▶ Do not tap the antenna unnecessarily when the phone is in use. Contact with the antenna affects call quality and may cause the phone to operate at a higher power level than otherwise needed.

## **Driving**

Check the laws and regulations on the use of wireless phones in the areas where you drive. Always obey them. Also, if using your phone while driving, please:

- ▶ Give full attention to driving - driving safely is your first responsibility;
- ▶ Use hands-free operation, if available;
- ▶ Pull off the road and park before making or answering a call if driving conditions so require.

## **Electronic Devices**

Most modern electronic equipment is shielded from RF signals. However, certain electronic equipment may not be shielded against the RF signals from your wireless phone.

## **Pacemakers**

The Health Industry Manufacturers Association recommends that a minimum separation of six (6") inches be maintained between a handheld wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research.

Persons with pacemakers:

- ▶ Should ALWAYS keep the phone more than six inches from their pacemaker when the phone is turned ON;
- ▶ Should not carry the phone in a breast pocket.
- ▶ Should use the ear opposite the pacemaker to minimize the potential for interference.
- ▶ If you have any reason to suspect that interference is taking place, turn your phone OFF immediately.

## **Hearing Aids**

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult AT&T.

## **HAC**

This phone has been tested and rated for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Consult your service provider or the manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or exchange policies, consult your service provider or phone retailer.

## **Other Medical Devices**

If you use any other personal medical device, consult the manufacturer of your device to determine if they are adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information.

## **Health Care Facilities**

Turn your phone OFF in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may use equipment that could be sensitive to external RF energy.

## **Vehicles**

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle.

You should also consult the manufacturer of any equipment that has been added to your vehicle.

## **Posted Facilities**

Turn your phone OFF in any facility where posted notices so require.

## **Aircraft**

FCC regulations prohibit using your phone while in the air. Turn your phone OFF before boarding an aircraft.

### Blasting Areas

To avoid interfering with blasting operations, turn your phone OFF when in a 'blasting areas' or in areas posted: 'Turn off two-way radio'. Obey all signs and instructions.

### Potentially Explosive Atmosphere

Turn your phone OFF when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Areas with a potentially explosive atmosphere are often, but not always, marked clearly. Potential areas may include: fueling areas (such as gasoline stations); below deck on boats; fuel or chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles (such as grain, dust, or metal powders); and any other area where you would normally be advised to turn off your vehicle engine.

### For Vehicles Equipped with an Air Bag

An air bag inflates with great force. DO NOT place objects, including either installed or portable wireless equipment, in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

### Charger and Adapter Safety

- ▶ The charger and adapter are intended for indoor use only.

### Battery Information and Care

- ▶ Please dispose of your battery properly or take it to your local wireless carrier for recycling.
- ▶ The battery does not need to be fully discharged before recharging.
- ▶ Use only LG-approved chargers specific to your phone model since they are designed to maximize battery life.
- ▶ Do not disassemble or impact the battery as it may cause electric shock, short-circuit, and fire. Store the battery in a place out of reach of children.

## Safety Guidelines

- ▶ Keep the battery's metal contacts clean.
- ▶ Replace the battery when it no longer provides acceptable performance. The battery can be recharged several hundred times before replacement.
- ▶ Recharge the battery after long periods of non-use to maximize battery life.
- ▶ Battery life will vary due to usage patterns and environmental conditions.
- ▶ Use of extended backlighting, MEdia Net Browsing, and data connectivity kits affect battery life and talk/standby times.
- ▶ The self-protection function of the battery cuts the power of the phone when its operation is in an abnormal state. In this case, remove the battery from the phone, reinstall it, and turn the phone on.
- ▶ Actual battery life will depend on network configuration, product settings, usage patterns, battery and environmental conditions.

## Explosion, Shock, and Fire Hazards

- ▶ Do not put your phone in a place subject to excessive dust and keep the minimum required distance between the power cord and heat sources.
- ▶ Unplug the power cord prior to cleaning your phone, and clean the power plug pin when it is dirty.
- ▶ When using the power plug, ensure that it is firmly connected. If it is not, it may cause excessive heat or fire.
- ▶ If you put your phone in a pocket or bag without covering the receptacle of the phone (power plug pin), metallic articles (such as a coin, paperclip or pen) may short-circuit the phone. Always cover the receptacle when not in use.
- ▶ Do not short-circuit the battery. Metallic articles such as a coin, paperclip or pen in your pocket or bag may short-circuit the + and – terminals of the battery (metal strips on the battery) upon moving. Short-circuit of the terminal may damage the battery and cause an explosion.

### General Notice

- ▶ Using a damaged battery or placing a battery in your mouth may cause serious injury.
- ▶ Do not place items containing magnetic components such as a credit card, phone card, bank book or subway ticket near your phone. The magnetism of the phone may damage the data stored in the magnetic strip.
- ▶ Talking on your phone for a long period of time may reduce call quality due to heat generated during use.
- ▶ When the phone is not used for a long period time, store it in a safe place with the power cord unplugged.
- ▶ Using the phone in proximity to receiving equipment (i.e., TV or radio) may cause interference to the phone.
- ▶ Do not use the phone if the antenna is damaged. If a damaged antenna contacts skin, it may cause a slight burn. Please contact an LG Authorized Service Center to replace the damaged antenna.
- ▶ Do not immerse your phone in water. If this happens, turn it off immediately and remove the battery. If the phone does not work, take it to an LG Authorized Service Center.
- ▶ Do not paint your phone.
- ▶ The data saved in your phone might be deleted due to careless use, repair of the phone, or upgrade of the software. Please backup your important phone numbers. (Ring tones, text messages, voice messages, pictures, and videos could also be deleted.) The manufacturer is not liable for damage due to the loss of data.
- ▶ When you use the phone in public places, set the ring tone to vibration so as not to disturb others.
- ▶ Do not turn your phone on or off when putting it in your ear.
- ▶ Your phone is an electronic device that generates heat during normal operation. Extremely prolonged, direct skin contact in the absence of adequate ventilation may result in discomfort or minor burns. Therefore, use care when handling your phone during or immediately after operation.

### Caution: Avoid potential hearing loss.

Prolonged exposure to loud sounds (including music) is the most common cause of preventable hearing loss. Some scientific research suggests that using portable audio devices, such as portable music players and cellular telephones, at high volume settings for long durations may lead to permanent noise induced hearing loss. This includes the use of headphones (including headsets, earbuds and Bluetooth® or other wireless devices).

Exposure to very loud sound has also been associated in some studies with tinnitus (a ringing in the ear), hypersensitivity to sound and distorted hearing. Individual susceptibility to noise-induced hearing loss and other potential hearing problems varies.

The amount of sound produced by a portable audio device varies depending on the nature of the sound, the device, the device settings and the headphones. You should follow some commonsense recommendations when using any portable audio device: **204 Safety**

- ▶ Set the volume in a quiet environment and select the lowest volume at which you can hear adequately.

- ▶ When using headphones, turn the volume down if you cannot hear the people speaking near you or if the person sitting next to you can hear what you are listening to.
- ▶ Do not turn the volume up to block out noisy surroundings. If you choose to listen to your portable device in a noisy environment, use noisecancelling headphones to block out background environmental noise.
- ▶ Limit the amount of time you listen. As the volume increases, less time is required before your hearing could be affected.
- ▶ Avoid using headphones after exposure to extremely loud noises, such as rock concerts, that might cause temporary hearing loss. Temporary hearing loss might cause unsafe volumes to sound normal.
- ▶ Do not listen at any volume that causes you discomfort. If you experience ringing in your ears, hear muffled speech or experience any temporary hearing difficulty after listening to your portable audio device, discontinue use and consult your doctor.

You can obtain additional information on this

subject from the following sources:

### **Safety 205**

American Academy of Audiology 11730 Plaza  
American Drive, Suite 300

Reston, VA 20190

Voice: (800) 222-2336

Email: [info@audiology.org](mailto:info@audiology.org)

Internet: [www.audiology.org](http://www.audiology.org)

National Institute on Deafness and Other  
Communication

Disorders

National Institutes of Health

31 Center Drive, MSC 2320

Bethesda, MD USA 20892-2320

Voice: (301) 496-7243

Email: [nidcdinfo@nih.gov](mailto:nidcdinfo@nih.gov)

Internet: [http://www.nidcd.nih.gov/health/  
hearing](http://www.nidcd.nih.gov/health/hearing)

National Institute for Occupational Safety and  
Health Hubert H. Humphrey Bldg.

200 Independence Ave., SW Washington,  
DC 20201 Voice: 1-800-35-NIOSH (1-800-  
356-4674)

Internet: [http://www.cdc.gov/niosh/topics/  
noise/default.html](http://www.cdc.gov/niosh/topics/noise/default.html)

## **FDA Consumer Update**

The U.S. Food and Drug Administration Center  
for Devices and Radiological Health Consumer  
Update on Mobile Phones.

### **1. Do wireless phones pose a health hazard?**

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of radiofrequency energy (RF) in the microwave range while being used. They also emit very low levels of RF when in the Home screen. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

### 2. What is the FDA's role concerning the safety of wireless phones?

Under the law, the FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit radiofrequency energy (RF) at a level that is hazardous to the user. In such a case, the FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace, or recall the phones so that the hazard no longer exists.

Although the existing scientific data do not justify FDA regulatory actions, the FDA has urged the wireless phone industry to take a number of steps, including the following:

- ▶ Support needed research into possible biological effects of RF of the type emitted by wireless phones;
- ▶ Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and
- ▶ Cooperate in providing users of wireless phones with the best possible information

on possible effects of wireless phone use on human health.

The FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of RF safety to ensure coordinated efforts at the federal level. The following agencies belong to this working group:

- ▶ National Institute for Occupational Safety and Health
- ▶ Environmental Protection Agency
- ▶ Occupational Safety and Health Administration
- ▶ National Telecommunications and Information Administration

The National Institutes of Health participates in some interagency working group activities, as well.

The FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. The FCC relies on the FDA and other health agencies for safety questions about wireless phones.

The FCC also regulates the base stations



that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the subject of the safety questions discussed in this document.

### **3.What kinds of phones are the subject of this update?**

The term ‘wireless phone’ refers here to handheld wireless phones with built-in antennas, often called ‘cell’, ‘mobile’, or ‘PCS’ phones. These types of wireless phones can expose the user to measurable radiofrequency energy (RF) because of the short distance between the phone and the user’s head. These RF exposures are limited by FCC safety guidelines that were developed with the advice of the FDA and other federal health and safety agencies. When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person’s RF exposure decreases rapidly with increasing distance from the source. The so-called

‘cordless phones,’ which have a base unit connected to the telephone wiring in a house, typically operate at far lower power levels, and thus produce RF exposures far below the FCC safety limits.

### **4.What are the results of the research done already?**

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of radiofrequency energy (RF) exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer causing chemicals so as to be pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the

## Safety Guidelines

conditions under which people use wireless phones, so we don't know with certainty what the results of such studies mean for human health. Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

### **5.What research is needed to decide whether RF exposure from wireless phones poses a health risk?**

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of

animals would be needed to provide reliable proof of a cancer promoting effect if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but 10 or more years follow-up may be needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop - if they do- may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

### **6.What is the FDA doing to find out more about the possible health effects of wireless phone RF?**

The FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to radiofrequency energy (RF). The FDA

has been a leading participant in the World Health Organization International Electromagnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The project has also helped develop a series of public information documents on EMF issues. The FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. The FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts with independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

### **7. How can I find out how much radio frequency energy exposure I can get by using my wireless phone?**

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit radio frequency energy (RF) exposures. The FCC established these guidelines in consultation with the FDA and the other federal health and safety agencies. The FCC limit for RF exposure from wireless telephones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6 W/kg). The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissues that absorb energy from the wireless phone and is set well below levels known to have effects. Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (<http://www.fcc.gov/oet/rfsafety>) gives directions for locating the FCC identification number on your phone so you can find your

## Safety Guidelines

phone's RF exposure level in the online listing.

### **8.What has the FDA done to measure the radio frequency energy coming from wireless phones?**

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the radio frequency energy (RF) exposure from wireless phones and other wireless handsets with the participation and leadership of FDA scientists and engineers. The standard, 'Recommended Practice for Determining the Spatial- Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques,' sets forth the first consistent test methodology for measuring the rate at which RF is deposited in the heads of wireless phone users. The test method uses a tissuesimulating model of the human head. Standardized SAR test methodology is expected to greatly improve the consistency of measurements made at different laboratories on the same phone. SAR is the measurement of the amount of energy absorbed in tissue, either by the whole body

or a small part of the body. It is measured in watts/kg (or milliwatts/g) of matter. This measurement is used to determine whether a wireless phone complies with safety guidelines.

### **9.What steps can I take to reduce my exposure to radiofrequency energy from my wireless phone?**

If there is a risk from these products - and at this point we do not know that there is - it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to radiofrequency energy (RF). Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure. If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna. Again, the scientific data

do not demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.

### **10. What about children using wireless phones?**

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to radiofrequency energy (RF), the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure. Some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all. For example, the government in the United Kingdom distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or

other ill effects. Their recommendation to limit wireless phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists.

### **11. What about wireless phone interference with medical equipment?**

Radio frequency energy (RF) from wireless phones can interact with some electronic devices. For this reason, the FDA helped develop a detailed test method to measure electromagnetic interference (EMI) of implanted cardiac pacemakers and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical instrumentation (AAMI). The final draft, a joint effort by the FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI. The FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard

## Safety Guidelines

sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that no interference occurs when a person uses a 'compatible' phone and a 'compatible' hearing aid at the same time. This standard was approved by the IEEE in 2000. The FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, the FDA will conduct testing to assess the interference and work to resolve the problem.

### 12. Where can I find additional information?

For additional information, please refer to the following resources:

FDA web page on wireless phones  
(<http://www.fda.gov>, click on "C" in the index and "Cell Phones")

Federal Communications Commission (FCC)  
RF Safety Program  
(<http://www.fcc.gov/oet/rfsafety>)

International Commission on Non-Ionizing  
Radiation Protection

(<http://www.icnirp.de>)

World Health Organization (WHO)  
International EMF Project  
(<http://www.who.int/emf>)

National Radiological Protection Board (UK)  
(<http://www.nrp.org.uk/radiation/>)

## 10 Driver Safety Tips

Your wireless phone gives you the powerful ability to communicate by voice almost anywhere, anytime. An important responsibility accompanies the benefits of wireless phones, one that every user must uphold.

When operating a car, driving is your first responsibility.

When using your wireless phone behind the wheel of a car, practice good common sense and remember the following tips:

1. Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.

- 2.** When available, use a hands-free device. A number of hands-free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.
  - 3.** Position your wireless phone within easy reach. Make sure you place your wireless phone within easy reach and where you can reach it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voicemail answer it for you.
  - 4.** Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.
  - 5.** Do not take notes or look up phone numbers while driving. If you are reading an Address Book or business card, or writing a “to-do” list while driving a car, you are not watching where you are going. It is common sense.
- Don't get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.
- 6.** Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light or otherwise stationary. But if you need to dial while driving, follow this simple tip— dial only a few numbers, check the road and your mirrors, then continue.
  - 7.** Do not engage in stressful or emotional conversations that may be distracting. Stressful or emotional conversations and driving do not mix; they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.
  - 8.** Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations — with your phone at your side, help is only three numbers away.

## Safety Guidelines

Dial 911 or other local emergency number in the case of fire, traffic accident, road hazard or medical emergency. Remember, it is a free call on your wireless phone!

9. Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a "Good Samaritan" in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 911 or other local emergency number, as you would want others to do for you.
10. Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you can still use your wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle. You know to be stolen, call roadside assistance or other special non-emergency wireless number.

For more information, please call to 888-901-SAFE, or visit our website <http://www.ctia.org>.

## Consumer Information on SAR (Specific Absorption Rate)

This model phone meets the government's requirements for exposure to radio waves.

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg.\* Tests for SAR are conducted using standard operating positions specified by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands.



Although SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. Because the phone is designed to operate at multiple power levels to use only the power required to reach the network, in general, the closer you are to a wireless base station antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) as required by the FCC for each model. The highest SAR value for this phone when tested for use at the ear is 0.67 W/kg and when worn on the body, as described in this user's manual, is 1.12 W/kg. (Body-worn measurements differ among phones models, depending upon available accessories and FCC requirements.) While there may be differences between SAR levels of various phones and at various positions, they all meet the government requirement for safe exposure.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on FCC ID BEJP930.

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) website at <http://www.ctia.org>

\* In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.

### FCC Hearing-Aid Compatibility (HAC) Regulations for Wireless Devices

On July 10, 2003, the U.S. Federal Communications Commission (FCC) Report and Order in WT Docket 01-309 modified the exception of wireless phones under the Hearing Aid Compatibility Act of 1988 (HAC Act) to require digital wireless phones be compatible with hearing-aids. The intent of the HAC Act is to ensure reasonable access to telecommunications services for persons with hearing disabilities.

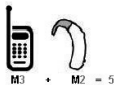
While some wireless phones are used near some hearing devices (hearing aids and cochlear implants), users may detect a buzzing, humming, or whining noise. Some hearing devices are more immune than others to this interference noise, and phones also vary in the amount of interference they generate.

The wireless telephone industry has developed a rating system for wireless phones, to assist hearing device users to find phones that may be compatible with their hearing devices. Not all phones have been rated. Phones that are rated have the rating on their box or a label located on the box.

The ratings are not guarantees. Results will vary depending on the user's hearing device and hearing loss. If your hearing device happens to be vulnerable to interference, you may not be able to use a rated phone successfully. Trying out the phone with your hearing device is the best way to evaluate it for your personal needs.

**M-Ratings:** Phones rated M3 or M4 meet FCC requirements and are likely to generate less interference to hearing devices than phones that are not labeled. M4 is the better/higher of the two ratings.

Hearing devices may also be rated. Your hearing device manufacturer or hearing health professional may help you find this rating. Higher ratings mean that the hearing device is relatively immune to interference noise. The hearing aid and wireless phone rating values are then added together. A sum of 5 is considered acceptable for normal use. A sum of 6 is considered for best use.



In the above example, if a hearing aid meets the M2 level rating and the wireless phone meets the M3 level rating, the sum of the two values equal

M5. This should provide the hearing aid user with “normal usage” while using their hearing aid with the particular wireless phone. “Normal usage” in this context is defined as a signal quality that’s acceptable for normal operation.

The M mark is intended to be synonymous with the U mark. The T mark is intended to be synonymous with the UT mark. The M and T marks are recommended by the Alliance for Telecommunications Industries Solutions (ATIS). The U and UT marks are referenced in Section 20.19 of the FCC Rules. The HAC rating and measurement procedure are described in the American National Standards Institute (ANSI) C63.19 standard.

When you’re talking on a cell phone, it’s recommended that you turn the BT (Bluetooth) mode off for HAC.

According to HAC policy(KDB 285076), we state this handset has not been rated for hearing aid compatibility with respect to the WiFi capability. For information about hearing aids and digital wireless phones

Wireless Phones and Hearing Aid Accessibility  
<http://www.accesswireless.org/Home.aspx>

FCC Hearing Aid Compatibility and Volume Control  
[http://www.fcc.gov/cgb/consumerfacts/hac\\_wireless.html](http://www.fcc.gov/cgb/consumerfacts/hac_wireless.html)